

**From:** Tim Cook [REDACTED]  
**Sent:** 12 December 2023 12:17  
**To:** Licensing EDDC; [REDACTED]  
**Subject:** Description and products.

**Follow Up Flag:** Follow up  
**Flag Status:** Completed

**Categories:** [REDACTED]

Hi Emily,

As requested please see the details for the recent conversion to vehicle WJ23 PVF. Please let me know if I have missed anything off and I will also forward the missing data sheets as soon as they land in my inbox.

Firstly the vehicle came to me as an empty panel van.  
The window panels were cut out of the van in the same way they would be in the factory leaving all structural supports in place. Once the cut edges weren't treated and trimmed with protective knock-on trim the glass primers were applied as per the manufacturer's requirements to both the body of the van and the glass itself.  
Once this was done the windows were bonded in using (Wayside Adhesives Master bond 1Hr) This product is manufactured for the bonding of aftermarket windows into vehicles. Please see attached data sheet.  
The glass fitted in the van is purchased from a specific van window supplier specialising in aftermarket glass. The glass is made specifically for this vehicle to give a factory finish. Please see the Data Sheet on this.

The Vehicle was then lined out using a four way stretch carpet (Easy Liner) to the sides and roof. This was applied using (Trim Fix) high temperature spray adhesive specifically designed for automotive use. Data sheets attached.

The seats are vehicle specific and original to the vehicle with integrated seat belts. They fit in the factory position and use the original M12 Torx55 Bolts and M12 nyloc nuts with underbody support plates.  
Each seat has two heavy duty floor rails that require a minimum of three bolt fixings per rail but some have four or five depending on the underbody and location in the vehicle.  
The second row of seats have the option to be rear or forward facing utilising the original manufacturers floor rails.  
The Third row of seats are only forward facing as per the manufacturers floor rails.

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Many Thanks

Tim Cook

M: [REDACTED]  
T: [REDACTED]

E: [REDACTED]

W: [www.vanformers.co.uk](http://www.vanformers.co.uk)



F: [www.facebook.com/VanFormers](https://www.facebook.com/VanFormers)

# Safety Data Sheet

According to Annex II to REACH - Regulation 2015/830

## SECTION 1. Identification of the substance/mixture and of the company/undertaking

### 1.1. Product identifier

Product name **MASTERBOND 1HR**

### 1.2. Relevant identified uses of the substance or mixture and uses advised against

Intended use **One component adhesive for the automotive industry.**

Identified Uses	Industrial	Professional	Consumer
<b>SEALANTS AND ADHESIVES FORMULATIONS IN INDUSTRY</b>	SU: 10. ERC: 2. PROC: 3, 4, 5, 8a, 8b, 9. PC: 1.	-	-
<b>INDUSTRIAL APPLICATIONS OF SEALANTS AND ADHESIVES</b>	SU: 17, 19. ERC: 5, 8b. PROC: 10, 8a, 8b. PC: 1.	SU: 17, 19. ERC: 5, 8b. PROC: 10, 8a, 8b. PC: 1.	-
<b>CHEMICAL SUBSTANCE USE IN LABORATORY, INDUSTRIAL</b>	PROC: 15. PC: 1, 21.	-	-

### 1.3. Details of the supplier of the safety data sheet

Name **WAYSIDE ADHESIVES LTD**  
Full address **23 MAIN ROAD, RADCLIFFE ON TRENT, UK**  
District and Country  
Tel. **01159 33 33 21**  
e-mail address of the competent person responsible for the Safety Data Sheet [INFO@WAYSIDEADHESIVES.COM](mailto:INFO@WAYSIDEADHESIVES.COM)

### 1.4. Emergency telephone number

For urgent inquiries refer to **WAYSIDE ADHESIVES LTD.**

## SECTION 2. Hazards identification

### 2.1. Classification of the substance or mixture

The product is classified as hazardous pursuant to the provisions set forth in (EC) Regulation 1272/2008 (CLP) (and subsequent amendments and supplements). The product thus requires a safety datasheet that complies with the provisions of (EU) Regulation 2015/830. Any additional information concerning the risks for health and/or the environment are given in sections 11 and 12 of this sheet.

Hazard classification and indication:

Respiratory sensitization, category 1

H334

May cause allergy or asthma symptoms or breathing difficulties if inhaled.

**SECTION 2. Hazards identification ... / >>****2.2. Label elements**

Hazard labelling pursuant to EC Regulation 1272/2008 (CLP) and subsequent amendments and supplements.

Hazard pictograms:



Signal words: Danger

Hazard statements:

**H334** May cause allergy or asthma symptoms or breathing difficulties if inhaled.  
**EUH204** Contains isocyanates. May produce an allergic reaction.

Precautionary statements:

**P261** Avoid breathing dust / fume / gas / mist / vapours / spray.  
**P284** [In case of inadequate ventilation] wear respiratory protection.  
**P304+P340** IF INHALED: remove person to fresh air and keep comfortable for breathing.  
**P342+P311** If experiencing respiratory symptoms: call a POISON CENTER / doctor / . . .  
**P501** Dispose of contents / container according to local regulation.

**Contains:** DIPHENYLMETHANE-4,4'-DIISOCYANATE

As from 24 August 2023 adequate training is required before industrial or professional use.

**2.3. Other hazards**

On the basis of available data, the product does not contain any PBT or vPvB in percentage  $\geq$  than 0,1%.

**SECTION 3. Composition/information on ingredients****3.2. Mixtures**

Contains:

Identification                      **x = Conc. %**                      **Classification 1272/2008 (CLP)**

**DIISONONYL PHTHALATE**

CAS                      28553-12-0       $40 \leq x < 42,5$

EC                        249-079-5

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Reg. no.                01-2119430798-28

**CARBON BLACK.**

CAS                      1333-86-4       $30 \leq x < 32,5$

EC                        215-609-9

INDEX

Reg. no.                01-2119384822-32

**DIPHENYLMETHANE-4,4'-DIISOCYANATE**

CAS                      101-68-8       $0,809 \leq x < 0,909$       **Carc. 2 H351, Acute Tox. 4 H332, STOT RE 2 H373, Eye Irrit. 2 H319, Skin Irrit. 2 H315, STOT SE 3 H335, Resp. Sens. 1 H334, Skin Sens. 1 H317, Classification note/notes according to Annex VI to the CLP Regulation: 2, C**

EC                        202-966-0

INDEX                      615-005-00-9

Reg. no.                01-2119457014-47-XXXX

**SECTION 3. Composition/information on ingredients ... / >>****2,2 - DIMORPHOLINODIETHYL ETHER**CAS 6425-39-4 0,45 ≤ x < 0,5 **Eye Irrit. 2 H319**

EC 229-194-7

INDEX

Reg. no. 01-2119969278-20-xxxx

The full wording of hazard (H) phrases is given in section 16 of the sheet.

**SECTION 4. First aid measures****4.1. Description of first aid measures**

EYES: Remove contact lenses, if present. Wash immediately with plenty of water for at least 15 minutes, opening the eyelids fully. If problem persists, seek medical advice.

SKIN: Remove contaminated clothing. Rinse skin with a shower immediately. Get medical advice/attention immediately. Wash contaminated clothing before using it again.

INHALATION: Remove to open air. If the subject stops breathing, administer artificial respiration. Get medical advice/attention immediately.

INGESTION: Get medical advice/attention immediately. Do not induce vomiting. Do not administer anything not explicitly authorised by a doctor.

**4.2. Most important symptoms and effects, both acute and delayed**

Specific information on symptoms and effects caused by the product are unknown.

**4.3. Indication of any immediate medical attention and special treatment needed**

Information not available

**SECTION 5. Firefighting measures****5.1. Extinguishing media**

## SUITABLE EXTINGUISHING EQUIPMENT

The extinguishing equipment should be of the conventional kind: carbon dioxide, foam, powder and water spray.

## UNSUITABLE EXTINGUISHING EQUIPMENT

None in particular.

**5.2. Special hazards arising from the substance or mixture**

## HAZARDS CAUSED BY EXPOSURE IN THE EVENT OF FIRE

Do not breathe combustion products.

**5.3. Advice for firefighters**

## GENERAL INFORMATION

Use jets of water to cool the containers to prevent product decomposition and the development of substances potentially hazardous for health. Always wear full fire prevention gear. Collect extinguishing water to prevent it from draining into the sewer system. Dispose of contaminated water used for extinction and the remains of the fire according to applicable regulations.

## SPECIAL PROTECTIVE EQUIPMENT FOR FIRE-FIGHTERS

Normal fire fighting clothing i.e. fire kit (BS EN 469), gloves (BS EN 659) and boots (HO specification A29 and A30) in combination with self-contained open circuit positive pressure compressed air breathing apparatus (BS EN 137).

**SECTION 6. Accidental release measures****6.1. Personal precautions, protective equipment and emergency procedures**

Block the leakage if there is no hazard.

Wear suitable protective equipment (including personal protective equipment referred to under Section 8 of the safety data sheet) to prevent any contamination of skin, eyes and personal clothing. These indications apply for both processing staff and those involved in emergency procedures.

**6.2. Environmental precautions**

The product must not penetrate into the sewer system or come into contact with surface water or ground water.

**6.3. Methods and material for containment and cleaning up**

Collect the leaked product into a suitable container. Evaluate the compatibility of the container to be used, by checking section 10. Absorb the remainder with inert absorbent material.

## SECTION 6. Accidental release measures ... / >>

Make sure the leakage site is well aired. Contaminated material should be disposed of in compliance with the provisions set forth in point 13.

### 6.4. Reference to other sections

Any information on personal protection and disposal is given in sections 8 and 13.

## SECTION 7. Handling and storage

### 7.1. Precautions for safe handling

Before handling the product, consult all the other sections of this material safety data sheet. Avoid leakage of the product into the environment. Do not eat, drink or smoke during use. Remove any contaminated clothes and personal protective equipment before entering places in which people eat.

### 7.2. Conditions for safe storage, including any incompatibilities

Store only in the original container. Store the containers sealed, in a well ventilated place, away from direct sunlight. Keep containers away from any incompatible materials, see section 10 for details.

Storage class TRGS 510 (Germany): 10

### 7.3. Specific end use(s)

Information not available

## SECTION 8. Exposure controls/personal protection

### 8.1. Control parameters

Regulatory References:

CZE	Česká Republika	Nařízení vlády č. 41/2020 Sb. Nařízení vlády, kterým se mění nařízení vlády č. 361/2007 Sb., kterým se stanoví podmínky ochrany zdraví při práci, ve znění pozdějších předpisů
DEU	Deutschland	Technischen Regeln für Gefahrstoffe (TRGS 900) - Liste der Arbeitsplatzgrenzwerte und Kurzzeitwerte. MAK- und BAT-Werte-Liste 2020, Ständige Senatskommission zur Prüfung gesundheitsschädlicher Arbeitsstoffe, Mitteilung 56
DNK	Danmark	Bekendtgørelse om grænseværdier for stoffer og materialer - BEK nr 1458 af 13/12/2019
ESP	España	Límites de exposición profesional para agentes químicos en España 2019
FRA	France	Valeurs limites d'exposition professionnelle aux agents chimiques en France. ED 984 - INRS
FIN	Suomi	HTP-VÄRDEN 2020. Koncentrationer som befunnits skadliga. SOCIAL - OCH HÄLSOVÄRDSMINISTERIETS PUBLIKATIONER 2020:25
GRC	Ελλάδα	Π.Δ. 26/2020 (ΦΕΚ 50/Α` 6.3.2020) Εναρμόνιση της ελληνικής νομοθεσίας προς τις διατάξεις των οδηγιών 2017/2398/ΕΕ, 2019/130/ΕΕ και 2019/983/ΕΕ «για την τροποποίηση της οδηγίας 2004/37/ΕΚ "σχετικά με την προστασία των εργαζομένων από τους κινδύνους που συνδέονται με την έκθεση σε καρκινογόνους ή μεταλλαξιγόνους παράγοντες κατά την εργασία"»
HUN	Magyarország	Az innovációért és technológiáért felelős miniszter 5/2020. (II. 6.) ITM rendelete a kémiai kóroki tényezők hatásának kitett munkavállalók egészségének és biztonságának védelméről
HRV	Hrvatska	Pravilnik o izmjenama i dopunama Pravilnika o zaštiti radnika od izloženosti opasnimkemijskim faktorima na radu, graničnim vrijednostima izloženosti i biološkim graničnim vrijednostima (NN 1/2021)
ITA	Italia	Decreto Legislativo 9 Aprile 2008, n.81
NOR	Norge	Forskrift om endring i forskrift om tiltaksverdier og grenseverdier for fysiske og kjemiske faktorer i arbeidsmiljøet samt smitterisikogrupper for biologiske faktorer (forskrift om tiltaks- og grenseverdier), 21. august 2018 nr. 1255
POL	Polska	Rozporządzenie Ministra Rodziny, Pracy i Polityki Społecznej z dnia 12 czerwca 2018 r. w sprawie najwyższych dopuszczalnych stężeń i natężeń czynników szkodliwych dla zdrowia w środowisku pracy
SWE	Sverige	Hygieniska gränsvärden, Arbetsmiljöverkets föreskrifter och allmänna råd om hygieniska gränsvärden (AFS 2018:1)
SVK	Slovensko	NARIADENIE VLÁDY Slovenskej republiky z 12. augusta 2020, ktorým sa mení a dopĺňa nariadenie vlády Slovenskej republiky č. 356/2006 Z. z. o ochrane zdravia zamestnancov pred rizikami súvisiacimi s expozíciou karcinogénnym a mutagénnym faktorom pri práci v znení neskorších predpisov
GBR	United Kingdom TLV-ACGIH	EH40/2005 Workplace exposure limits (Fourth Edition 2020) ACGIH 2020

**SECTION 8. Exposure controls/personal protection ... / >>**

**DIISONONYL PHTHALATE**

**Threshold Limit Value**

Type	Country	TWA/8h		STEL/15min		Remarks / Observations
		mg/m3	ppm	mg/m3	ppm	
TLV	CZE	3	0,171	10	0,57	
TLV	DNK	3				
GVI/KGVI	HRV	5				
NGV/KGV	SWE	3		5 (C)		
WEL	GBR	5				

**CARBON BLACK.**

**Threshold Limit Value**

Type	Country	TWA/8h		STEL/15min		Remarks / Observations
		mg/m3	ppm	mg/m3	ppm	
TLV	CZE	2				
MAK	DEU	4				INHAL
MAK	DEU	1,5				RESP
VLA	ESP	3,5				
VLEP	FRA	3,5				INHAL
HTP	FIN	3,5		7		
VLEP	ITA	3				INHAL
TLV	NOR	3,5				
NGV/KGV	SWE	3				
WEL	GBR	3,5		7		INHAL

**DIPHENYLMETHANE-4,4'-DIISOCYANATE**

**Threshold Limit Value**

Type	Country	TWA/8h		STEL/15min		Remarks / Observations
		mg/m3	ppm	mg/m3	ppm	
TLV	CZE	0,05		0,1		
AGW	DEU	0,05		0,05		
MAK	DEU	0,05		0,05		INHAL
MAK	DEU	0,05		0,05		SKIN
TLV	DNK	0,05	0,005	0,1	0,01	
VLA	ESP	0,052	0,005			
VLEP	FRA	0,1	0,01	0,2	0,02	
TLV	GRC	0,2		0,2		
AK	HUN	0,05		0,05		
TLV	NOR	0,05	0,005			
NDS/NDSCh	POL	0,05		0,2		
NGV/KGV	SWE	0,03	0,002	0,05 (C)	0,005 (C)	
NPEL	SVK	0,05		0,05		
TLV-ACGIH		0,051	0,005			

**Predicted no-effect concentration - PNEC**

Normal value in fresh water	1	mg/l
Normal value in marine water	0,1	mg/l
Normal value for water, intermittent release	10	mg/l
Normal value of STP microorganisms	1	mg/l
Normal value for the terrestrial compartment	1	mg/kg

Inhalation	0,05	0,05	0,025	0,025	0,1	0,05
	mg/m3		mg/m3		mg/m3	mg/m3

**SECTION 8. Exposure controls/personal protection ... / >>**

**2,2 - DIMORPHOLINODIETHYL ETHER**

**Predicted no-effect concentration - PNEC**

Normal value in fresh water	0,1	mg/l
Normal value in marine water	0,01	mg/l
Normal value for fresh water sediment	8,2	mg/kg
Normal value for marine water sediment	0,82	mg/kg
Normal value for water, intermittent release	1	mg/l
Normal value of STP microorganisms	100	mg/l
Normal value for the terrestrial compartment	1,58	mg/kg

Oral	VND	0,5 mg/kg/d		
Inhalation	VND	1,8 mg/m3	VND	7,28 mg/m3
Skin	VND	0,5 mg/kg/d	VND	1 mg/kg/d

**Legend:**

(C) = CEILING ; INHAL = Inhalable Fraction ; RESP = Respirable Fraction ; THORA = Thoracic Fraction.  
 VND = hazard identified but no DNEL/PNEC available ; NEA = no exposure expected ; NPI = no hazard identified.

**8.2. Exposure controls**

As the use of adequate technical equipment must always take priority over personal protective equipment, make sure that the workplace is well aired through effective local aspiration.

When choosing personal protective equipment, ask your chemical substance supplier for advice.

Personal protective equipment must be CE marked, showing that it complies with applicable standards.

**HAND PROTECTION**

Protect your hands with work gloves, category III (ref. standard EN 374). For the final choice of material you need to assess the type of use. In case of contact for the short term or as protection against splashes, use gloves made of nitrile (0.3mm thickness, permeation time >480 min.). In the event of continued exposure use butyl rubber gloves (0.4mm thickness, permeation time > 480 min.). Contaminated gloves should be removed.

**SKIN PROTECTION**

Wear category I professional long-sleeved overalls and safety footwear (see Regulation 2016/425 and standard EN ISO 20344). Wash body with soap and water after removing protective clothing.

**EYE PROTECTION**

Wear airtight protective goggles (see standard EN 166).

**RESPIRATORY PROTECTION**

In case of exceeding the threshold value (eg, TLV-TWA) of the substance or one or more of the substances present in the product, it is advisable to wear a mask with filter type A for organic vapors, the class (1, 2 or 3) must be chosen according to the limit concentration of use (1000, 5000 or 10000 ppm) (ref. standard EN 14387).

**ENVIRONMENTAL EXPOSURE CONTROLS**

The emissions generated by manufacturing processes, including those generated by ventilation equipment, should be checked to ensure compliance with environmental standards.

**SECTION 9. Physical and chemical properties**

**9.1. Information on basic physical and chemical properties**

Properties	Value	Information
Appearance	paste	
Colour	black	
Odour	characteristic	
Odour threshold	Not available	
pH	Not applicable	Reason for missing data: Insoluble in water.
Melting point / freezing point	Not available	
Initial boiling point	270 °C	
Boiling range	Not available	
Flash point	Not applicable	
Evaporation rate	Not available	
Flammability (solid, gas)	Not available	
Lower inflammability limit	Not available	
Upper inflammability limit	Not available	



**SECTION 9. Physical and chemical properties ... / >>**

Lower explosive limit	Not available
Upper explosive limit	Not available
Vapour pressure	Not available
Vapour density	Not available
Relative density	1,15 - 1,19
Solubility	Not available
Partition coefficient: n-octanol/water	Not available
Auto-ignition temperature	375 °C
Decomposition temperature	Not available
Viscosity	400000 - 470000
Explosive properties	not explosive
Oxidising properties	non oxidizing

**9.2. Other information**

Information not available

**SECTION 10. Stability and reactivity****10.1. Reactivity**

There are no particular risks of reaction with other substances in normal conditions of use.

**10.2. Chemical stability**

The product is stable in normal conditions of use and storage.

**10.3. Possibility of hazardous reactions**

No hazardous reactions are foreseeable in normal conditions of use and storage.

**10.4. Conditions to avoid**

None in particular. However the usual precautions used for chemical products should be respected.

**10.5. Incompatible materials**

Information not available

**10.6. Hazardous decomposition products**

Information not available

**SECTION 11. Toxicological information**

In the absence of experimental data for the product itself, health hazards are evaluated according to the properties of the substances it contains, using the criteria specified in the applicable regulation for classification. It is therefore necessary to take into account the concentration of the individual hazardous substances indicated in section 3, to evaluate the toxicological effects of exposure to the product.

**11.1. Information on toxicological effects**Metabolism, toxicokinetics, mechanism of action and other information

Information not available

Information on likely routes of exposure

Information not available

Delayed and immediate effects as well as chronic effects from short and long-term exposure

Information not available

Interactive effects

Information not available

**SECTION 11. Toxicological information ... / >>**ACUTE TOXICITY

ATE (Inhalation) of the mixture: Not classified (no significant component)  
ATE (Oral) of the mixture: Not classified (no significant component)  
ATE (Dermal) of the mixture: Not classified (no significant component)

## 2,2 - DIMORPHOLINODIETHYL ETHER

LD50 (Oral) 2025 mg/kg Rattus sp.  
LD50 (Dermal) 3038 mg/kg Oryctolagus sp.

## CARBON BLACK.

LD50 (Oral) > 8000 mg/kg Rattus sp.  
LD50 (Dermal) > 3000 mg/kg Oryctolagus sp.  
LC50 (Inhalation) > 27 mg/l/1h Rattus sp.

## DIPHENYLMETHANE-4,4'-DIISOCYANATE

LD50 (Oral) > 2000 mg/kg Rattus sp.  
LD50 (Dermal) > 9400 mg/kg Oryctolagus sp.  
LC50 (Inhalation) 1,5 mg/l/4h Rattus sp.

## DIISONONYL PHTHALATE

LD50 (Oral) > 10000 mg/kg Rat - Sprague-Dawley  
LD50 (Dermal) > 3160 mg/kg Rabbit - New Zeland white  
LC50 (Inhalation) > 4,4 mg/l Rat - Sprague-Dawley

SKIN CORROSION / IRRITATION

Does not meet the classification criteria for this hazard class

SERIOUS EYE DAMAGE / IRRITATION

Does not meet the classification criteria for this hazard class

RESPIRATORY OR SKIN SENSITISATION

Sensitising for the respiratory system

GERM CELL MUTAGENICITY

Does not meet the classification criteria for this hazard class

CARCINOGENICITY

Does not meet the classification criteria for this hazard class

REPRODUCTIVE TOXICITY

Does not meet the classification criteria for this hazard class

STOT - SINGLE EXPOSURE

Does not meet the classification criteria for this hazard class

STOT - REPEATED EXPOSURE

Does not meet the classification criteria for this hazard class

ASPIRATION HAZARD

Does not meet the classification criteria for this hazard class

**SECTION 12. Ecological information**

Use this product according to good working practices. Avoid littering. Inform the competent authorities, should the product reach waterways or contaminate soil or vegetation.

**12.1. Toxicity**

**SECTION 12. Ecological information ... / >>**

2,2 - DIMORPHOLINODIETHYL ETHER	
LC50 - for Fish	> 2150 mg/l/96h
EC50 - for Crustacea	> 100 mg/l/48h Daphnia sp.
EC50 - for Algae / Aquatic Plants	> 100 mg/l/72h
Chronic NOEC for Algae / Aquatic Plants	100 mg/l
CARBON BLACK.	
LC50 - for Fish	> 1000 mg/l/96h Brachydanio rerio
EC50 - for Algae / Aquatic Plants	> 10000 mg/l/72h Scenedesmus subspicatus
DIPHENYLMETHANE-4,4'-DIISOCYANATE	
LC50 - for Fish	> 1000 mg/l/96h Danio rerio
EC50 - for Algae / Aquatic Plants	> 1640 mg/l/72h Scenedesmus subspicatus
Chronic NOEC for Crustacea	> 10 mg/l Daphnia magna
Chronic NOEC for Algae / Aquatic Plants	1640 mg/l Desmodesmus subspicatus
DIISONONYL PHTHALATE	
LC50 - for Fish	> 102 mg/l/96h Danio rerio
EC50 - for Crustacea	> 74 mg/l/48h Daphnia magna
EC50 - for Algae / Aquatic Plants	> 88 mg/l/72h Scenedesmus subspicatus

**12.2. Persistence and degradability**

2,2 - DIMORPHOLINODIETHYL ETHER  
NOT rapidly degradable

DIISONONYL PHTHALATE  
Solubility in water < 0,1 mg/l  
Rapidly degradable

**12.3. Bioaccumulative potential**

DIISONONYL PHTHALATE  
Partition coefficient: n-octanol/water 8,8  
BCF > 3

**12.4. Mobility in soil**

DIISONONYL PHTHALATE  
Partition coefficient: soil/water 6

**12.5. Results of PBT and vPvB assessment**

On the basis of available data, the product does not contain any PBT or vPvB in percentage  $\geq$  than 0,1%.

**12.6. Other adverse effects**

Information not available

**SECTION 13. Disposal considerations****13.1. Waste treatment methods**

Reuse, when possible. Product residues should be considered special hazardous waste. The hazard level of waste containing this product should be evaluated according to applicable regulations.

Disposal must be performed through an authorised waste management firm, in compliance with national and local regulations.

**CONTAMINATED PACKAGING**

Contaminated packaging must be recovered or disposed of in compliance with national waste management regulations.

**SECTION 14. Transport information**

The product is not dangerous under current provisions of the Code of International Carriage of Dangerous Goods by Road (ADR) and by Rail (RID), of the International Maritime Dangerous Goods Code (IMDG), and of the International Air Transport Association (IATA) regulations.

**SECTION 14. Transport information ... / >>****14.1. UN number**

Not applicable

**14.2. UN proper shipping name**

Not applicable

**14.3. Transport hazard class(es)**

Not applicable

**14.4. Packing group**

Not applicable

**14.5. Environmental hazards**

Not applicable

**14.6. Special precautions for user**

Not applicable

**14.7. Transport in bulk according to Annex II of Marpol and the IBC Code**

Information not relevant

**SECTION 15. Regulatory information****15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture**Seveso Category - Directive 2012/18/EC: NoneRestrictions relating to the product or contained substances pursuant to Annex XVII to EC Regulation 1907/2006Product

Point 3

Contained substance

Point	52	DIISONONYL PHTHALATE Reg. no.: 01-2119430798-28
Point	75	CARBON BLACK. Reg. no.: 01-2119384822-32
Point	56-75	DIPHENYLMETHANE-4,4'-DIISOCYANATE Reg. no.: 01-2119457014-47-XXXX
Point	74	DIISOCYANATES

Regulation (EC) No. 2019/1148 - on the marketing and use of explosives precursors

Not applicable

Substances in Candidate List (Art. 59 REACH)On the basis of available data, the product does not contain any SVHC in percentage  $\geq$  than 0,1%.Substances subject to authorisation (Annex XIV REACH)

None

Substances subject to exportation reporting pursuant to (EC) Reg. 649/2012:

None

Substances subject to the Rotterdam Convention:

None

Substances subject to the Stockholm Convention:

None

**SECTION 15. Regulatory information ... / >>****Healthcare controls**

Workers exposed to this chemical agent must not undergo health checks, provided that available risk-assessment data prove that the risks related to the workers' health and safety are modest and that the 98/24/EC directive is respected.

German regulation on the classification of substances hazardous to water (AwSV, vom 18. April 2017)

WGK 1: Low hazard to waters

**15.2. Chemical safety assessment**

A chemical safety assessment has been performed for the following contained substances  
DIPHENYLMETHANE-4,4'-DIISOCYANATE

**SECTION 16. Other information**

Text of hazard (H) indications mentioned in section 2-3 of the sheet:

<b>Carc. 2</b>	Carcinogenicity, category 2
<b>Acute Tox. 4</b>	Acute toxicity, category 4
<b>STOT RE 2</b>	Specific target organ toxicity - repeated exposure, category 2
<b>Eye Irrit. 2</b>	Eye irritation, category 2
<b>Skin Irrit. 2</b>	Skin irritation, category 2
<b>STOT SE 3</b>	Specific target organ toxicity - single exposure, category 3
<b>Resp. Sens. 1</b>	Respiratory sensitization, category 1
<b>Skin Sens. 1</b>	Skin sensitization, category 1
<b>H351</b>	Suspected of causing cancer.
<b>H332</b>	Harmful if inhaled.
<b>H373</b>	May cause damage to organs through prolonged or repeated exposure.
<b>H319</b>	Causes serious eye irritation.
<b>H315</b>	Causes skin irritation.
<b>H335</b>	May cause respiratory irritation.
<b>H334</b>	May cause allergy or asthma symptoms or breathing difficulties if inhaled.
<b>H317</b>	May cause an allergic skin reaction.
<b>EUH204</b>	Contains isocyanates. May produce an allergic reaction.

Use descriptor system:

<b>ERC 2</b>	Formulation into mixture
<b>ERC 5</b>	Use at industrial site leading to inclusion into/onto article
<b>ERC 8b</b>	Widespread use of reactive processing aid (no inclusion into or onto article, indoor)
<b>PC 1</b>	Adhesives, sealants
<b>PC 21</b>	Laboratory chemicals
<b>PROC 10</b>	Roller application or brushing
<b>PROC 15</b>	Use as laboratory reagent
<b>PROC 3</b>	Manufacture or formulation in the chemical industry in closed batch processes with occasional controlled exposure or processes with equivalent containment condition
<b>PROC 4</b>	Chemical production where opportunity for exposure arises
<b>PROC 5</b>	Mixing or blending in batch processes
<b>PROC 8a</b>	Transfer of substance or mixture (charging and discharging) at non- dedicated facilities
<b>PROC 8b</b>	Transfer of substance or mixture (charging and discharging) at dedicated facilities
<b>PROC 9</b>	Transfer of substance or mixture into small containers (dedicated filling line, including weighing)
<b>SU 10</b>	Formulation [mixing] of preparations and/or re-packaging (excluding alloys)
<b>SU 17</b>	General manufacturing, e.g. machinery, equipment, vehicles, other transport equipment
<b>SU 19</b>	Building and construction work

**LEGEND:**

- ADR: European Agreement concerning the carriage of Dangerous goods by Road
- CAS NUMBER: Chemical Abstract Service Number
- CE50: Effective concentration (required to induce a 50% effect)
- CE NUMBER: Identifier in ESIS (European archive of existing substances)
- CLP: EC Regulation 1272/2008
- DNEL: Derived No Effect Level
- EmS: Emergency Schedule
- GHS: Globally Harmonized System of classification and labeling of chemicals
- IATA DGR: International Air Transport Association Dangerous Goods Regulation
- IC50: Immobilization Concentration 50%
- IMDG: International Maritime Code for dangerous goods
- IMO: International Maritime Organization
- INDEX NUMBER: Identifier in Annex VI of CLP
- LC50: Lethal Concentration 50%
- LD50: Lethal dose 50%
- OEL: Occupational Exposure Level

**SECTION 16. Other information ... / >>**

- PBT: Persistent bioaccumulative and toxic as REACH Regulation - PEC: Predicted environmental Concentration
- PEL: Predicted exposure level
- PNEC: Predicted no effect concentration
- REACH: EC Regulation 1907/2006
- RID: Regulation concerning the international transport of dangerous goods by train
- TLV: Threshold Limit Value
- TLV CEILING: Concentration that should not be exceeded during any time of occupational exposure.
- TWA STEL: Short-term exposure limit
- TWA: Time-weighted average exposure limit
- VOC: Volatile organic Compounds
- vPvB: Very Persistent and very Bioaccumulative as for REACH Regulation
- WGK: Water hazard classes (German).

**GENERAL BIBLIOGRAPHY**

1. Regulation (EC) 1907/2006 (REACH) of the European Parliament
  2. Regulation (EC) 1272/2008 (CLP) of the European Parliament
  3. Regulation (EU) 790/2009 (I Atp. CLP) of the European Parliament
  4. Regulation (EU) 2015/830 of the European Parliament
  5. Regulation (EU) 286/2011 (II Atp. CLP) of the European Parliament
  6. Regulation (EU) 618/2012 (III Atp. CLP) of the European Parliament
  7. Regulation (EU) 487/2013 (IV Atp. CLP) of the European Parliament
  8. Regulation (EU) 944/2013 (V Atp. CLP) of the European Parliament
  9. Regulation (EU) 605/2014 (VI Atp. CLP) of the European Parliament
  10. Regulation (EU) 2015/1221 (VII Atp. CLP) of the European Parliament
  11. Regulation (EU) 2016/918 (VIII Atp. CLP) of the European Parliament
  12. Regulation (EU) 2016/1179 (IX Atp. CLP)
  13. Regulation (EU) 2017/776 (X Atp. CLP)
  14. Regulation (EU) 2018/669 (XI Atp. CLP)
  15. Regulation (EU) 2018/1480 (XIII Atp. CLP)
  16. Regulation (EU) 2019/521 (XII Atp. CLP)
  17. Regulation (EU) 2019/1148
  18. Regulation (EU) 2020/217 (XIV Atp. CLP)
- The Merck Index. - 10th Edition
  - Handling Chemical Safety
  - INRS - Fiche Toxicologique (toxicological sheet)
  - Patty - Industrial Hygiene and Toxicology
  - N.I. Sax - Dangerous properties of Industrial Materials-7, 1989 Edition
  - IFA GESTIS website
  - ECHA website
  - Database of SDS models for chemicals - Ministry of Health and ISS (Istituto Superiore di Sanità) - Italy

**Note for users:**

The information contained in the present sheet are based on our own knowledge on the date of the last version. Users must verify the suitability and thoroughness of provided information according to each specific use of the product.

This document must not be regarded as a guarantee on any specific product property.

The use of this product is not subject to our direct control; therefore, users must, under their own responsibility, comply with the current health and safety laws and regulations. The producer is relieved from any liability arising from improper uses.

Provide appointed staff with adequate training on how to use chemical products.

**CALCULATION METHODS FOR CLASSIFICATION**

Chemical and physical hazards: Product classification derives from criteria established by the CLP Regulation, Annex I, Part 2. The data for evaluation of chemical-physical properties are reported in section 9.

Health hazards: Product classification is based on calculation methods as per Annex I of CLP, Part 3, unless determined otherwise in Section 11.

Environmental hazards: Product classification is based on calculation methods as per Annex I of CLP, Part 4, unless determined otherwise in Section 12.

**Changes to previous review:**

The following sections were modified:

02 / 03 / 08 / 09 / 11 / 12 / 15.





T.C.  
SANAYİ VE TEKNOLOJİ BAKANLIĞI  
T.R.  
MINISTRY OF INDUSTRY AND TECHNOLOGY



TÜRK STANDARDLARI ENSTİTÜSÜ  
TURKISH STANDARDS INSTITUTION

Tip Onay No /Type Approval No : **43R – 010216**

Kapsam Genişletme No / Extension No : -

## BİLDİRİM COMMUNICATION



**Yönetmelik No:43 uyarınca emniyet cam malzeme tipi ile ilgili olarak,**  
*of a type of safety glazing material pursuant to Regulation No. 43.*

**Onay Verildi /Approval Granted**

**Onay Kapsamı Genişletildi /Approval Extended**

**Onay Reddedildi /Approval Refused**

**Onay Geri Çekildi /Approval Withdrawn**

**İmalat Tamamen Durduruldu /Production Definitely Discontinued**

**Onay No: 43R – 010216**

*Approval No*

**Kapsam Genişletme No: -**

*Extension No*

- 1. Emniyet Cam Malzemesinin Sınıfı**  
*Class of safety glazing material* : **DÜZGÜN TOKLAŞTIRILMIŞ CAM PANELLER**  
*UNIFORMLY-TOUGHENED GLASS PANES*  
**Sınıf II (3,5 mm < e ≤ 4,5 mm), Hafif Renkli**  
*(3,5 mm < e ≤ 4,5 mm Category II), Tinted*  
**Işık Geçirgenliği <%70 / Light Transmission <%70**
- 2. Cam Tipinin Tanımı**  
*Description of the type of glazing* : **Bkz. Ek 1 - İlave 2 / See Annex 1-Appendix 2**
- 3. Ticari Adlar Ve Markalar**  
*Trade names or marks* : **“WILLGLASS”**
- 4. İmalatçının Adı ve Adresi**  
*Manufacturer's name and address* : **EKPOL OTOMOTİV CAM SANAYİ VE**  
**TİCARET LTD. ŞTİ.**  
**Kayapa Sanayi Bölgesi Çiğdem Cad. No:4/A Nilüfer**  
**BURSA**
- 5. Varsa, İmalatçının Temsilcisinin Adı ve Adresi**  
*If applicable, name and address of manufacturer's representative* : -
- 6. Onaya Sunulduğu Tarih**  
*Submitted For Approval On* : **08.08.2018**
- 7. Onay Deneylerini Yapmaktan Sorumlu Teknik Servis**  
*Technical service responsible for conducting approval tests* : **TÜRK STANDARDLARI ENSTİTÜSÜ**
- 8. Teknik Servis Tarafından Verilen Raporun Tarihi**  
*Date of report issued by that service* : **26.07.2018**

**ACIKLAMALAR:** Bu belge, BSTB ile TSE arasında imzalanan 28/09/2015 tarihli “Türk Standardları Enstitüsünün Tip Onayı Belgelendirme İşlemleri Kapsamında Görevlendirilmesine Dair Protokol” çerçevesinde hazırlanmış ve onaylanmıştır.

**Description:** This certificate, signed between MSIT and TSE on 28/09/2015 was prepared in the scope of “The protocol on the purpose of authorizing Turkish Standards Institute on the Type Approval Certification Procedures” and was approved.





T.C.  
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MINISTRY OF INDUSTRY AND TECHNOLOGY



TÜRK STANDARDLARI ENSTİTÜSÜ  
TURKISH STANDARDS INSTITUTION

Tip Onay No /Type Approval No : 43R – 010216

Kapsam Genişletme No / Extension No : -

9. Teknik Servis Tarafından Verilen Raporun Sayısı : TSE.06.R-43.0238  
Number of report issued by that service
10. Onay, : Verildi/Reddedildi/ Kapsamı Genişletildi /Geri Çekildi  
Approval Is : Granted /Refused / Extended / Withdrawn
11. Onay Kapsamının Genişletilme Nedeni (Nedenleri) : -  
Reason(s) for extension of approval
12. Açıklamalar / Remarks : Cam Panel / Glass Panes
13. Yer / Place : ANKARA
14. Tarih / Date : 14.08.2018
15. İmza / Signature



Ali BENGİ  
TSE Ulaşım ve Lojistik Sistemleri Merkezi Başkanı

16. Onayı veren idari bölümce dosyalanan ve istek üzerine elde edilebilecek olan dokümanların listesi bu bildirimde eklenmiştir.  
The list of documents filed with the Type Approval Authority which has granted approval and available on request is Annexed to this communication.

1. Test Raporu (Teknik Servis)(5 sayfa) / Test Report(5 pages)
2. Yönetmelik No:43'e göre Ek 1 – İlave 2 (1 sayfa) / Annex 1 –Appendix 2 to Regulation No. 43(1 page)

**AÇIKLAMALAR:** Bu belge, BSTB ile TSE arasında imzalanan 28/09/2015 tarihli "Türk Standardları Enstitüsünün Tip Onayı Belgelendirme İşlemleri Kapsamında Görevlendirilmesine Dair Protokol" çerçevesinde hazırlanmış ve onaylanmıştır.

**Description:** This certificate, signed between MSIT and TSE on 28/09/2015 was prepared in the scope of "The protocol on the purpose of authorizing Turkish Standards Institute on the Type Approval Certification Procedures" and was approved.



**EK 1 - İLAVE 2**  
(ANNEX 1 – APPENDIX 2)

**DÜZGÜN TOKLAŞTIRILMIŞ CAM PANELLER**  
(UNIFORMLY-TOUGHENED GLASS PANES)

(Yönetmelik No:43 Ek 5 veya Ek 9'da tanımlanan temel ve ikincil özellikler)  
(Principal and secondary characteristics as defined in Annex 5 or Annex 9 to Regulation No. 43)

**Onay No: 43R – 010216**

Approval No

**Kapsam Genişletme No: -**

Extension No

**Temel Özellikler / Principal characteristics**

- **Ön camlardan Başka (var/yok)** : **VAR / YES**  
*Other than windscreens (yes/no)*
- **Yavaş Hareket Eden Taşıtlar İçin Ön Cam(lar)** : **YOK / NO**  
*Windscreen(s) for slow moving vehicles*
- **Biçim Özelliği** : **Düz Ve Bombeli Cam Panel**  
*Shape category* *Flat And Segment Glass Panel*
- **Toklaştırma İşleminin Şekli** : **İşıl İşlem / Thermal**  
*Nature of toughening process:*
- **Kalınlık Sınıfı** : **Sınıf II (3,5 mm < e ≤ 4,5 mm)**  
*Thickness category* *Category II (3,5 mm < e ≤ 4,5 mm)*
- **Plastik kaplamanın (kaplamaların) yapısı ve tipi** : **YOK / NO**  
*Nature and type of plastics coating(s)*
- **Plastik kaplamanın (kaplamaların) anma kalınlığı** : **YOK / NO**  
*Nominal thickness of plastic coating(s)*

**İkincil Özellikler / Secondary characteristics**

- **Malzemenin yapısı (plaka, flotat, levha cam)** : **FLOAT / FLOAT**  
*Nature of the material (plate, float, sheet glass)*
- **Camın Renklendirilmesi(renksiz/hafif renkli)** : **Hafif Renkli / Tinted**  
*Colouring of glass (colourless/tinted)*
- **Plastik kaplamanın(kaplamaların) renklendirilmesi** : **YOK / NO**  
*Colouring of plastics coating(s)*
- **İletkenlerin Varlığı (var/yok)** : **VAR**  
*Conductors incorporated (yes/no)* **YES**
- **Opak engelleyicinin Varlığı (var/yok)** : **VAR / Serigrafi**  
*Opaque obscuration incorporated (yes/no)* **YES / Serigraphy**

**Onaylanmış Kriterler / Approved criteria**

- **En Büyük Alan** : **2,50 m<sup>2</sup>**  
*Greatest area (flat glass)*
- **En Küçük Açı** : **14°**  
*Smallest angle*
- **En büyük cam elde etme alanı (bombeli cam)** : **2,50 m<sup>2</sup>**  
*Greatest developed area (curved glass)*
- **En büyük bombe yüksekliği** : **34 mm**  
*Greatest height of segment*

**Açıklamalar / Remarks:**

: **Işık Geçirgenliği <%70 / Light Transmission <%70**

**Ekli Dokümanlar: -**

Documents attached: -

**AÇIKLAMALAR:** Bu belge, BSTB ile TSE arasında imzalanan 28/09/2015 tarihli "Türk Standardları Enstitüsünün Tip Onayı Belgelendirme İşlemleri Kapsamında Görevlendirilmesine Dair Protokol" çerçevesinde hazırlanmış ve onaylanmıştır.

**Description:** This certificate, signed between MSIT and TSE on 28/09/2015 was prepared in the scope of "The protocol on the purpose of authorizing Turkish Standards Institute on the Type Approval Certification Procedures" and was approved.



T.C.  
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Tip Onay No /Type Approval No : 43R – 010215



TÜRK STANDARDLARI ENSTİTÜSÜ  
TURKISH STANDARDS INSTITUTION

Kapsam Genişletme No / Extension No : -

## BİLDİRİM COMMUNICATION



Yönetmelik No:43 uyarınca emniyet cam malzeme tipi ile ilgili olarak,  
of a type of safety glazing material pursuant to Regulation No. 43.

Onay Verildi /Approval Granted

Onay Kapsamı Genişletildi /Approval Extended

Onay Reddedildi /Approval Refused

Onay Geri Çekildi /Approval Withdrawn

İmalat Tamamen Durduruldu /Production Definitely Discontinued

Onay No: 43R – 010215  
Approval No

Kapsam Genişletme No: -  
Extension No

- Emniyet Cam Malzemesinin Sınıfı**  
Class of safety glazing material : **DÜZGÜN TOKLAŞTIRILMIŞ CAM PANELLER**  
UNIFORMLY-TOUGHENED GLASS PANES  
Sınıf II (3,5 mm < e ≤ 4,5 mm), Hafif Renkli  
(3,5 mm < e ≤ 4,5 mm Category II), Tinted  
Işık Geçirgenliği >%70 / Light Transmission >%70
- Cam Tipinin Tarifi**  
Description of the type of glazing : **Bkz. Ek 1 - İlave 2 / See Annex 1-Appendix 2**
- Ticari Adlar Ve Markalar**  
Trade names or marks : **“WILLGLASS”**
- İmalatçının Adı ve Adresi**  
Manufacturer's name and address : **EKPOL OTOMOTİV CAM SANAYİ VE  
TİCARET LTD. ŞTİ.  
Kayapa Sanayi Bölgesi Çiğdem Cad. No:4/A Nilüfer  
BURSA**
- Varsa, İmalatçının Temsilcisinin Adı ve Adresi**  
If applicable, name and address of manufacturer's  
representative : -
- Onaya Sunulduğu Tarih**  
Submitted For Approval On : **08.08.2018**
- Onay Deneylerini Yapmaktan Sorumlu Teknik Servis**  
Technical service responsible for conducting approval  
tests : **TÜRK STANDARDLARI ENSTİTÜSÜ**
- Teknik Servis Tarafından Verilen Raporun Tarihi**  
Date of report issued by that service : **26.07.2018**

**AÇIKLAMALAR:** Bu belge, BSTB ile TSE arasında imzalanan 28/09/2015 tarihli “Türk Standardları Enstitüsünün Tip Onayı Belgelendirme İşlemleri Kapsamında Görevlendirilmesine Dair Protokol” çerçevesinde hazırlanmış ve onaylanmıştır.

**Description:** This certificate, signed between MSIT and TSE on 28/09/2015 was prepared in the scope of “The protocol on the purpose of authorizing Turkish Standards Institute on the Type Approval Certification Procedures” and was approved.



T.C.  
SANAYİ VE TEKNOLOJİ BAKANLIĞI  
T.R.  
MINISTRY OF INDUSTRY AND TECHNOLOGY



TÜRK STANDARDLARI ENSTİTÜSÜ  
TURKISH STANDARDS INSTITUTION

Tip Onay No /Type Approval No : 43R – 010215

Kapsam Genişletme No / Extension No : -

9. Teknik Servis Tarafından Verilen Raporun Sayısı : TSE.06.R-43.0237  
*Number of report issued by that service*
10. Onay, : Verildi/Reddedildi/ Kapsamı Genişletildi /Geri Çekildi  
*Approval Is Granted / Refused / Extended / Withdrawn*
11. Onay Kapsamının Genişletilme Nedeni (Nedenleri) : -  
*Reason(s) for extension of approval*
12. Açıklamalar / Remarks : Cam Panel / Glass Panes
13. Yer / Place : ANKARA
14. Tarih / Date : 14.08.2018
15. İmza / Signature



**Ali BENGİ**  
TSE Ulaşım ve Lojistik Sistemleri Merkezi Başkanı

16. Onayı veren idari bölüme dosyalanan ve istek üzerine elde edilebilecek olan dokümanların listesi bu bildirimde eklenmiştir.

*The list of documents filed with the Type Approval Authority which has granted approval and available on request is Annexed to this communication.*

1. Test Raporu (Teknik Servis)(5 sayfa) / Test Report(5 pages)
2. Yönetmelik No:43'e göre Ek 1 – İlave 2 (1 sayfa) / Annex 1 –Appendix 2 to Regulation No. 43(1 page)

**AÇIKLAMALAR:** Bu belge, BSTB ile TSE arasında imzalanan 28/09/2015 tarihli "Türk Standardları Enstitüsünün Tip Onayı Belgelendirme İşlemleri Kapsamında Görevlendirilmesine Dair Protokol" çerçevesinde hazırlanmış ve onaylanmıştır.

**Description:** This certificate, signed between MSIT and TSE on 28/09/2015 was prepared in the scope of "The protocol on the purpose of authorizing Turkish Standards Institute on the Type Approval Certification Procedures" and was approved.



**EK 1 - İLAVE 2**  
(ANNEX 1 – APPENDIX 2)

**DÜZGÜN TOKLAŞTIRILMIŞ CAM PANELLER**  
(UNIFORMLY-TOUGHENED GLASS PANES)

(Yönetmelik No:43 Ek 5 veya Ek 9'da tanımlanan temel ve ikincil özellikler)  
(Principal and secondary characteristics as defined in Annex 5 or Annex 9 to Regulation No. 43)

**Onay No: 43R – 010215**

Approval No

**Kapsam Genişletme No: -**

Extension No

**Temel Özellikler / Principal characteristics**

- **Ön camlardan Başka (var/yok)** : **VAR / YES**  
Other than windscreens (yes/no)
- **Yavaş Hareket Eden Taşıtlar İçin Ön Cam(lar)** : **YOK / NO**  
Windscreen(s) for slow moving vehicles
- **Biçim Özelliği** : **Düz Ve Bombeli Cam Panel**  
Shape category *Flat And Segment Glass Panel*
- **Toklaştırma İşleminin Şekli** : **İşıl İşlem / Thermal**  
Nature of toughening process:
- **Kalınlık Sınıfı** : **Sınıf II (3,5 mm < e ≤ 4,5 mm)**  
Thickness category *Category II (3,5 mm < e ≤ 4,5 mm)*
- **Plastik kaplamanın (kaplamaların) yapısı ve tipi** : **YOK / NO**  
Nature and type of plastics coating(s)
- **Plastik kaplamanın (kaplamaların) anma kalınlığı** : **YOK / NO**  
Nominal thickness of plastic coating(s)

**İkincil Özellikler / Secondary characteristics**

- **Malzemenin yapısı (plaka, flotat, levha cam)** : **FLOAT / FLOAT**  
Nature of the material (plate, float, sheet glass)
- **Camın Renklendirilmesi(renksiz/hafif renkli)** : **Hafif Renkli / Tinted**  
Colouring of glass (colourless/tinted)
- **Plastik kaplamanın(kaplamaların) renklendirilmesi** : **YOK / NO**  
Colouring of plastics coating(s)
- **İletkenlerin Varlığı (var/yok)** : **VAR**  
Conductors incorporated (yes/no) *YES*
- **Opak engelleyicinin Varlığı (var/yok)** : **VAR / Serigrafi**  
Opaque obscuration incorporated (yes/no) *YES / Serigraphy*

**Onaylanmış Kriterler / Approved criteria**

- **En Büyük Alan** : **2,50 m<sup>2</sup>**  
Greatest area (flat glass)
- **En Küçük Açı** : **14°**  
Smallest angle
- **En büyük cam elde etme alanı (bombeli cam)** : **2,50 m<sup>2</sup>**  
Greatest developed area (curved glass)
- **En büyük bombe yüksekliği** : **34 mm**  
Greatest height of segment

**Açıklamalar / Remarks**

: **İşık Geçirgenliği >%70 / Light Transmission >%70**

**Ekli Dokümanlar: -**

Documents attached: -

**AÇIKLAMALAR:** Bu belge, BSTB ile TSE arasında imzalanan 28/09/2015 tarihli "Türk Standardları Enstitüsünün Tip Onayı Belgelendirme İşlemleri Kapsamında Görevlendirilmesine Dair Protokol" çerçevesinde hazırlanmış ve onaylanmıştır.

**Description:** This certificate, signed between MSIT and TSE on 28/09/2015 was prepared in the scope of "The protocol on the purpose of authorizing Turkish Standards Institute on the Type Approval Certification Procedures" and was approved.





T.C.  
SANAYİ VE TEKNOLOJİ BAKANLIĞI  
T.R.  
MINISTRY OF INDUSTRY AND TECHNOLOGY



TÜRK STANDARDLARI ENSTİTÜSÜ  
TURKISH STANDARDS INSTITUTION

Tip Onay No /Type Approval No : 43R – 010214

Kapsam Genişletme No / Extension No : -

## BİLDİRİM COMMUNICATION



Yönetmelik No:43 uyarınca emniyet cam malzeme tipi ile ilgili olarak,  
of a type of safety glazing material pursuant to Regulation No. 43.

Onay Verildi /Approval Granted

Onay Kapsamı Genişletildi /Approval Extended

Onay Reddedildi /Approval Refused

Onay Geri Çekildi /Approval Withdrawn

İmalat Tamamen Durduruldu /Production Definitely Discontinued

Onay No: 43R – 010214

Approval No

Kapsam Genişletme No: -

Extension No

- Emniyet Cam Malzemesinin Sınıfı**  
Class of safety glazing material : **DÜZGÜN TOKLAŞTIRILMIŞ CAM PANELLER**  
UNIFORMLY-TOUGHENED GLASS PANES  
Sınıf II (3,5 mm < e ≤ 4,5 mm), Renksiz  
(3,5 mm < e ≤ 4,5 mm Category II), Colourless  
Işık Geçirgenliği >%70 / Light Transmission >%70
- Cam Tipinin Tarifi**  
Description of the type of glazing : **Bkz. Ek 1 - İlave 2 / See Annex 1-Appendix 2**
- Ticari Adlar Ve Markalar**  
Trade names or marks : **“WILLGLASS”**
- İmalatçının Adı ve Adresi**  
Manufacturer's name and address : **EKPOL OTOMOTİV CAM SANAYİ VE**  
**TİCARET LTD. ŞTİ.**  
**Kayapa Sanayi Bölgesi Çiğdem Cad. No:4/A Nilüfer**  
**BURSA**
- Varsa, İmalatçının Temsilcisinin Adı ve Adresi**  
If applicable, name and address of manufacturer's representative : -
- Onaya Sunulduğu Tarih**  
Submitted For Approval On : **08.08.2018**
- Onay Deneylerini Yapmaktan Sorumlu Teknik Servis**  
Technical service responsible for conducting approval tests : **TÜRK STANDARDLARI ENSTİTÜSÜ**
- Teknik Servis Tarafından Verilen Raporun Tarihi**  
Date of report issued by that service : **26.07.2018**

**AÇIKLAMALAR:** Bu belge, BSTB ile TSE arasında imzalanan 28/09/2015 tarihli “Türk Standardları Enstitüsünün Tip Onayı Belgelendirme İşlemleri Kapsamında Görevlendirilmesine Dair Protokol” çerçevesinde hazırlanmış ve onaylanmıştır.

**Description:** This certificate, signed between MSIT and TSE on 28.09/2015 was prepared in the scope of “The protocol on the purpose of authorizing Turkish Standards Institute on the Type Approval Certification Procedures” and was approved.



T.C.  
SANAYİ VE TEKNOLOJİ BAKANLIĞI  
T.R.  
MINISTRY OF INDUSTRY AND TECHNOLOGY



TÜRK STANDARDLARI ENSTİTÜSÜ  
TURKISH STANDARDS INSTITUTION

Tip Onay No /Type Approval No : 43R – 010214

Kapsam Genişletme No / Extension No : -

9. Teknik Servis Tarafından Verilen Raporun Sayısı : TSE.06.R-43.0236  
*Number of report issued by that service*
10. Onay, : Verildi/Reddedildi/ Kapsamı Genişletildi /Geri Çekildi  
*Approval Is Granted / Refused / Extended / Withdrawn*
11. Onay Kapsamının Genişletilme Nedeni (Nedenleri) : -  
*Reason(s) for extension of approval*
12. Açıklamalar / Remarks : Cam Panel / Glass Panes
13. Yer / Place : ANKARA
14. Tarih / Date : 14.08.2018
15. İmza / Signature



Ali BENGİ  
TSE Ulaşım ve Lojistik Sistemleri Merkezi Başkanı

16. Onayı veren idari bölümce dosyalanan ve istek üzerine elde edilebilecek olan dokümanların listesi bu bildirimde eklenmiştir.

*The list of documents filed with the Type Approval Authority which has granted approval and available on request is Annexed to this communication.*

1. Test Raporu (Teknik Servis)(5 sayfa) / Test Report(5 pages)
2. Yönetmelik No:43'e göre Ek 1 – İlave 2 (1 sayfa) / Annex 1 –Appendix 2 to Regulation No. 43(1 page)

**AÇIKLAMALAR:** Bu belge, BSTB ile TSE arasında imzalanan 28/09/2015 tarihli "Türk Standardları Enstitüsünün Tip Onayı Belgelendirme İşlemleri Kapsamında Görevlendirilmesine Dair Protokol" çerçevesinde hazırlanmış ve onaylanmıştır.

**Description:** This certificate, signed between MSIT and TSE on 28/09/2015 was prepared in the scope of "The protocol on the purpose of authorizing Turkish Standards Institute on the Type Approval Certification Procedures" and was approved.



**EK 1 - İLAVE 2**  
(ANNEX 1 – APPENDIX 2)

**DÜZGÜN TOKLAŞTIRILMIŞ CAM PANELLER**  
(UNIFORMLY-TOUGHENED GLASS PANES)

(Yönetmelik No:43 Ek 5 veya Ek 9'da tanımlanan temel ve ikincil özellikler)  
(Principal and secondary characteristics as defined in Annex 5 or Annex 9 to Regulation No. 43)

**Onay No: 43R – 010214**

Approval No

**Kapsam Genişletme No: -**

Extension No

**Temel Özellikler / Principal characteristics**

- **Ön camlardan Başka (var/yok)** : **VAR / YES**  
Other than windscreens (yes/no)
- **Yavaş Hareket Eden Taşıtlar İçin Ön Cam(lar)** : **YOK / NO**  
Windscreen(s) for slow moving vehicles
- **Biçim Özelliği** : **Düz Ve Bombeli Cam Panel**  
Shape category *Flat And Segment Glass Panel*
- **Toklaştırma İşleminin Şekli** : **İşıl İşlem / Thermal**  
Nature of toughening process:
- **Kalınlık Sınıfı** : **Sınıf II (3,5 mm < e ≤ 4,5 mm)**  
Thickness category *Category II (3,5 mm < e ≤ 4,5 mm)*
- **Plastik kaplamanın (kaplamaların) yapısı ve tipi** : **YOK / NO**  
Nature and type of plastics coating(s)
- **Plastik kaplamanın (kaplamaların) anma kalınlığı** : **YOK / NO**  
Nominal thickness of plastic coating(s)

**İkincil Özellikler / Secondary characteristics**

- **Malzemenin yapısı (plaka, flotat, levha cam)** : **FLOAT / FLOAT**  
Nature of the material (plate, float, sheet glass)
- **Camın Renklendirilmesi(renksiz/hafif renkli)** : **Renksiz / Colourless**  
Colouring of glass (colourless/tinted)
- **Plastik kaplamanın(kaplamaların) renklendirilmesi** : **YOK / NO**  
Colouring of plastics coating(s)
- **İletkenlerin Varlığı (var/yok)** : **VAR**  
Conductors incorporated (yes/no) *YES*
- **Opak engelleyicinin Varlığı (var/yok)** : **VAR / Serigrafi**  
Opaque obscuration incorporated (yes/no) *YES / Serigraphy*

**Onaylanmış Kriterler / Approved criteria**

- **En Büyük Alan** : **2,50 m<sup>2</sup>**  
Greatest area (flat glass)
- **En Küçük Açı** : **14°**  
Smallest angle
- **En büyük cam elde etme alanı (bombeli cam)** : **2,50 m<sup>2</sup>**  
Greatest developed area (curved glass)
- **En büyük bombe yüksekliği** : **34 mm**  
Greatest height of segment

**Açıklamalar / Remarks**

: **Işık Geçirgenliği >%70 / Light Transmission >%70**

**Ekli Dokümanlar: -**

Documents attached: -

**AÇIKLAMALAR:** Bu belge, BSTB ile TSE arasında imzalanan 28/09/2015 tarihli "Türk Standardları Enstitüsünün Tip Onayı Belgelendirme İşlemleri Kapsamında Görevlendirilmesine Dair Protokol" çerçevesinde hazırlanmış ve onaylanmıştır.

**Description:** This certificate, signed between MSIT and TSE on 28/09/2015 was prepared in the scope of "The protocol on the purpose of authorizing Turkish Standards Institute on the Type Approval Certification Procedures" and was approved.





T.C.  
SANAYİ VE TEKNOLOJİ BAKANLIĞI  
T.R.  
MINISTRY OF INDUSTRY AND TECHNOLOGY

Tip Onay No /Type Approval No : 43R – 010213



TÜRK STANDARDLARI ENSTİTÜSÜ  
TURKISH STANDARDS INSTITUTION

Kapsam Genişletme No / Extension No : -

## BİLDİRİM COMMUNICATION



Yönetmelik No:43 uyarınca emniyet cam malzeme tipi ile ilgili olarak,  
of a type of safety glazing material pursuant to Regulation No. 43.

Onay Verildi /Approval Granted  
~~Onay Kapsamı Genişletildi /Approval Extended~~  
~~Onay Reddedildi /Approval Refused~~  
~~Onay Geri Çekildi /Approval Withdrawn~~  
~~İmalat Tamamen Durduruldu /Production Definitely Discontinued~~

Onay No: 43R – 010213  
Approval No

Kapsam Genişletme No: -  
Extension No

- Emniyet Cam Malzemesinin Sınıfı**  
Class of safety glazing material : **DÜZGÜN TOKLAŞTIRILMIŞ CAM PANELLER**  
UNIFORMLY-TOUGHENED GLASS PANES  
Sınıf III (4,5 mm < e ≤ 6,5 mm), Hafif Renkli  
(4,5 mm < e ≤ 6,5 mm Category III), Tinted  
Işık Geçirgenliği <%70 / Light Transmission <%70
- Cam Tipinin Tanımı**  
Description of the type of glazing : **Bkz. Ek 1 - İlave 2 / See Annex 1-Appendix 2**
- Ticari Adlar Ve Markalar**  
Trade names or marks : **“WILLGLASS”**
- İmalatçının Adı ve Adresi**  
Manufacturer's name and address : **EKPOL OTOMOTİV CAM SANAYİ VE  
TİCARET LTD. ŞTİ.  
Kayapa Sanayi Bölgesi Çiğdem Cad. No:4/A Nilüfer  
BURSA**
- Varsa, İmalatçının Temsilcisinin Adı ve Adresi**  
If applicable, name and address of manufacturer's  
representative : -
- Onaya Sunulduğu Tarih**  
Submitted For Approval On : **08.08.2018**
- Onay Deneylerini Yapmaktan Sorumlu Teknik Servis**  
Technical service responsible for conducting approval  
tests : **TÜRK STANDARDLARI ENSTİTÜSÜ**
- Teknik Servis Tarafından Verilen Raporun Tarihi**  
Date of report issued by that service : **26.07.2018**

ACIKLAMALAR: Bu belge, BSTB ile TSE arasında imzalanan 28/09/2015 tarihli “Türk Standardları Enstitüsünün Tip Onayı Belgelendirme İşlemleri Kapsamında Görevlendirilmesine Dair Protokol” çerçevesinde hazırlanmış ve onaylanmıştır.

Description: This certificate, signed between MSIT and TSE on 28/09/2015 was prepared in the scope of “The protocol on the purpose of authorizing Turkish Standards Institute on the Type Approval Certification Procedures” and was approved.



T.C.  
SANAYİ VE TEKNOLOJİ BAKANLIĞI  
T.R.  
MINISTRY OF INDUSTRY AND TECHNOLOGY



TÜRK STANDARDLARI ENSTİTÜSÜ  
TURKISH STANDARDS INSTITUTION

Tip Onay No /Type Approval No : 43R – 010213

Kapsam Genişletme No / Extension No : -

9. Teknik Servis Tarafından Verilen Raporun Sayısı : TSE.06.R-43.0235  
*Number of report issued by that service*
10. Onay, : Verildi/Reddedildi/ Kapsamı Genişletildi /Geri Çekildi  
*Approval Is Granted / Refused / Extended / Withdrawn*
11. Onay Kapsamının Genişletilme Nedeni (Nedenleri) : -  
*Reason(s) for extension of approval*
12. Açıklamalar / Remarks : Cam Panel / Glass Panes
13. Yer / Place : ANKARA
14. Tarih / Date : 14.08.2018
15. İmza / Signature



Ali BENGİ  
TSE Ulaşım ve Lojistik Sistemleri Merkezi Başkanı

16. Onayı veren idari bölüme dosyalanan ve istek üzerine elde edilebilecek olan dokümanların listesi bu bildirimde eklenmiştir.

*The list of documents filed with the Type Approval Authority which has granted approval and available on request is Annexed to this communication.*

1. Test Raporu (Teknik Servis)(5 sayfa) / Test Report(5 pages)
2. Yönetmelik No:43'e göre Ek 1 – İlave 2 (1 sayfa) / Annex 1 –Appendix 2 to Regulation No. 43(1 page)

**AÇIKLAMALAR:** Bu belge, BSTB ile TSE arasında imzalanan 28/09/2015 tarihli "Türk Standardları Enstitüsünün Tip Onayı Belgelendirme İşlemleri Kapsamında Görevlendirilmesine Dair Protokol" çerçevesinde hazırlanmış ve onaylanmıştır.

**Description:** This certificate, signed between MSIT and TSE on 28/09/2015 was prepared in the scope of "The protocol on the purpose of authorizing Turkish Standards Institute on the Type Approval Certification Procedures" and was approved.



**EK 1 - İLAVE 2**  
(ANNEX 1 – APPENDIX 2)

**DÜZGÜN TOKLAŞTIRILMIŞ CAM PANELLER**  
(UNIFORMLY-TOUGHENED GLASS PANES)

(Yönetmelik No:43 Ek 5 veya Ek 9'da tanımlanan temel ve ikincil özellikler)  
(Principal and secondary characteristics as defined in Annex 5 or Annex 9 to Regulation No. 43)

**Onay No: 43R – 010213**  
Approval No

**Kapsam Genişletme No: -**  
Extension No

**Temel Özellikler / Principal characteristics**

- **Ön camlardan Başka (var/yok)** : **VAR / YES**  
Other than windscreens (yes/no)
- **Yavaş Hareket Eden Taşıtlar İçin Ön Cam(lar)** : **YOK / NO**  
Windscreen(s) for slow moving vehicles
- **Biçim Özelliği** : **Düz Ve Bombeli Cam Panel**  
Shape category *Flat And Segment Glass Panel*
- **Toklaştırma İşleminin Şekli** : **İşıl İşlem / Thermal**  
Nature of toughening process:
- **Kalınlık Sınıfı** : **Sınıf III (4,5 mm < e ≤ 6,5 mm)**  
Thickness category *Category III (4,5 mm < e ≤ 6,5 mm)*
- **Plastik kaplamanın (kaplamaların) yapısı ve tipi** : **YOK / NO**  
Nature and type of plastics coating(s)
- **Plastik kaplamanın (kaplamaların) anma kalınlığı** : **YOK / NO**  
Nominal thickness of plastic coating(s)

**İkincil Özellikler / Secondary characteristics**

- **Malzemenin yapısı (plaka, flotat, levha cam)** : **FLOAT / FLOAT**  
Nature of the material (plate, float, sheet glass)
- **Camın Renklendirilmesi (renksiz/hafif renkli)** : **Hafif Renkli / Tinted**  
Colouring of glass (colourless/tinted)
- **Plastik kaplamanın (kaplamaların) renklendirilmesi** : **YOK / NO**  
Colouring of plastics coating(s)
- **İletkenlerin Varlığı (var/yok)** : **VAR**  
Conductors incorporated (yes/no) *YES*
- **Opak engelleyicinin Varlığı (var/yok)** : **VAR / Serigrafi**  
Opaque obscuration incorporated (yes/no) *YES / Serigraphy*

**Onaylanmış Kriterler / Approved criteria**

- **En Büyük Alan** : **2,50 m<sup>2</sup>**  
Greatest area (flat glass)
- **En Küçük Açı** : **14°**  
Smallest angle
- **En büyük cam elde etme alanı (bombeli cam)** : **2,50 m<sup>2</sup>**  
Greatest developed area (curved glass)
- **En büyük bombe yüksekliği** : **34 mm**  
Greatest height of segment

**Açıklamalar / Remarks**

: **İşık Geçirgenliği <%70 / Light Transmission <%70**

**Ekli Dokümanlar: -**

Documents attached: -

**AÇIKLAMALAR:** Bu belge, BSTB ile TSE arasında imzalanan 28/09/2015 tarihli "Türk Standardları Enstitüsünün Tip Onayı Belgelendirme İşlemleri Kapsamında Görevlendirilmesine Dair Protokol" çerçevesinde hazırlanmış ve onaylanmıştır.

**Description:** This certificate, signed between MSIT and TSE on 28/09/2015 was prepared in the scope of "The protocol on the purpose of authorizing Turkish Standards Institute on the Type Approval Certification Procedures" and was approved.



T.C.  
SANAYİ VE TEKNOLOJİ BAKANLIĞI  
T.R.  
MINISTRY OF INDUSTRY AND TECHNOLOGY



TÜRK STANDARDLARI ENSTİTÜSÜ  
TURKISH STANDARDS INSTITUTION

Tip Onay No /Type Approval No : 43R – 010212

Kapsam Genişletme No / Extension No : -

## BİLDİRİM COMMUNICATION



Yönetmelik No:43 uyarınca emniyet cam malzeme tipi ile ilgili olarak,  
of a type of safety glazing material pursuant to Regulation No. 43.

Onay Verildi /Approval Granted  
Onay Kapsamı Genişletildi /Approval Extended  
Onay Reddedildi /Approval Refused  
Onay Geri Çekildi /Approval Withdrawn  
İmalat Tamamen Durduruldu /Production Definitely Discontinued

Onay No: 43R – 010212  
Approval No

Kapsam Genişletme No: -  
Extension No

1. Emniyet Cam Malzemesinin Sınıfı  
Class of safety glazing material : DÜZGÜN TOKLAŞTIRILMIŞ CAM PANELLER  
UNIFORMLY-TOUGHENED GLASS PANES  
Sınıf III (4,5 mm < e ≤ 6,5 mm), Hafif Renkli  
(4,5 mm < e ≤ 6,5 mm Category III), Tinted  
Işık Geçirgenliği >%70 / Light Transmission >%70
2. Cam Tipinin Tarifi  
Description of the type of glazing : Bkz. Ek 1 - İlave 2 / See Annex 1-Appendix 2
3. Ticari Adlar Ve Markalar  
Trade names or marks : "WILLGLASS"
4. İmalatçının Adı ve Adresi  
Manufacturer's name and address : EKPOL OTOMOTİV CAM SANAYİ VE  
TİCARET LTD. ŞTİ.  
Kayapa Sanayi Bölgesi Çiğdem Cad. No:4/A Nilüfer  
BURSA
5. Varsa, İmalatçının Temsilcisinin Adı ve Adresi  
If applicable, name and address of manufacturer's  
representative : -
6. Onaya Sunulduğu Tarih  
Submitted For Approval On : 08.08.2018
7. Onay Deneylerini Yapmaktan Sorumlu Teknik Servis  
Technical service responsible for conducting approval  
tests : TÜRK STANDARDLARI ENSTİTÜSÜ
8. Teknik Servis Tarafından Verilen Raporun Tarihi  
Date of report issued by that service : 26.07.2018

ACIKLAMALAR: Bu belge, BSTB ile TSE arasında imzalanan 28/09/2015 tarihli "Türk Standardları Enstitüsünün Tip Onayı Belgelendirme İşlemleri Kapsamında Görevlendirilmesine Dair Protokol" çerçevesinde hazırlanmış ve onaylanmıştır.

Description: This certificate, signed between MSIT and TSE on 28.09.2015 was prepared in the scope of "The protocol on the purpose of authorizing Turkish Standards Institute on the Type Approval Certification Procedures" and was approved.



T.C.  
SANAYİ VE TEKNOLOJİ BAKANLIĞI  
T.R.  
MINISTRY OF INDUSTRY AND TECHNOLOGY



TÜRK STANDARDLARI ENSTİTÜSÜ  
TURKISH STANDARDS INSTITUTION

Tip Onay No /Type Approval No : 43R – 010212

Kapsam Genişletme No / Extension No : -

9. Teknik Servis Tarafından Verilen Raporun Sayısı : TSE.06.R-43.0234  
*Number of report issued by that service*
10. Onay, : Verildi/Reddedildi/ Kapsamı Genişletildi /Geri Çekildi  
*Approval Is* *Granted / Refused / Extended / Withdrawn*
11. Onay Kapsamının Genişletilme Nedeni (Nedenleri) : -  
*Reason(s) for extension of approval*
12. Açıklamalar / Remarks : Cam Panel / Glass Panes
13. Yer / Place : ANKARA
14. Tarih / Date : 14.08.2018
15. İmza / Signature



Ali BENGİ  
TSE Ulaşım ve Lojistik Sistemleri Merkezi Başkanı

16. Onayı veren idari bölümce dosyalanan ve istek üzerine elde edilebilecek olan dokümanların listesi bu bildirimde eklenmiştir.

*The list of documents filed with the Type Approval Authority which has granted approval and available on request is Annexed to this communication.*

1. Test Raporu (Teknik Servis)(5 sayfa) / Test Report(5 pages)
2. Yönetmelik No:43'e göre Ek 1 – İlave 2 (1 sayfa) / Annex 1 –Appendix 2 to Regulation No. 43(1 page)

**AÇIKLAMALAR:** Bu belge, BSTB ile TSE arasında imzalanan 28/09/2015 tarihli "Türk Standardları Enstitüsünün Tip Onayı Belgelendirme İşlemleri Kapsamında Görevlendirilmesine Dair Protokol" çerçevesinde hazırlanmış ve onaylanmıştır.

**Description:** This certificate, signed between MSIT and TSE on 28/09/2015 was prepared in the scope of "The protocol on the purpose of authorizing Turkish Standards Institute on the Type Approval Certification Procedures" and was approved.





**EK 1 - İLAVE 2**  
(ANNEX 1 – APPENDIX 2)

**DÜZGÜN TOKLAŞTIRILMIŞ CAM PANELLER**  
(UNIFORMLY-TOUGHENED GLASS PANES)

(Yönetmelik No:43 Ek 5 veya Ek 9'da tanımlanan temel ve ikincil özellikler)  
(Principal and secondary characteristics as defined in Annex 5 or Annex 9 to Regulation No. 43)

**Onay No: 43R – 010212**  
Approval No

**Kapsam Genişletme No: -**  
Extension No

**Temel Özellikler / Principal characteristics**

- **Ön camlardan Başka (var/yok)** : **VAR / YES**  
Other than windscreens (yes/no)
- **Yavaş Hareket Eden Taşıtlar İçin Ön Cam(lar)** : **YOK / NO**  
Windscreen(s) for slow moving vehicles
- **Biçim Özelliği** : **Düz ve Bombeli Cam Panel**  
Shape category *Flat And Segment Glass Panel*
- **Toklaştırma İşleminin Şekli** : **İşıl İşlem / Thermal**  
Nature of toughening process:
- **Kalınlık Sınıfı** : **Sınıf III (4,5 mm < e ≤ 6,5 mm)**  
Thickness category *Category III (4,5 mm < e ≤ 6,5 mm)*
- **Plastik kaplamanın (kaplamaların) yapısı ve tipi** : **YOK / NO**  
Nature and type of plastics coating(s)
- **Plastik kaplamanın (kaplamaların) anma kalınlığı** : **YOK / NO**  
Nominal thickness of plastic coating(s)

**İkincil Özellikler / Secondary characteristics**

- **Malzemenin yapısı (plaka, flotat, levha cam)** : **FLOAT / FLOAT**  
Nature of the material (plate, float, sheet glass)
- **Camın Renklendirilmesi(renksiz/hafif renkli)** : **Hafif Renkli / Tinted**  
Colouring of glass (colourless/tinted)
- **Plastik kaplamanın(kaplamaların) renklendirilmesi** : **YOK / NO**  
Colouring of plastics coating(s)
- **İletkenlerin Varlığı (var/yok)** : **VAR**  
Conductors incorporated (yes/no) *YES*
- **Opak engelleyicinin Varlığı (var/yok)** : **VAR / Serigrafi**  
Opaque obscuration incorporated (yes/no) *YES / Serigraphy*

**Onaylanmış Kriterler / Approved criteria**

- **En Büyük Alan** : **2,50 m<sup>2</sup>**  
Greatest area (flat glass)
- **En Küçük Açı** : **14°**  
Smallest angle
- **En büyük cam elde etme alanı (bombeli cam)** : **2,50 m<sup>2</sup>**  
Greatest developed area (curved glass)
- **En büyük bombe yüksekliği** : **34 mm**  
Greatest height of segment

**Açıklamalar / Remarks**

: **Işık Geçirgenliği >%70 / Light Transmission >%70**

**Ekli Dokümanlar: -**

Documents attached: -

**AÇIKLAMALAR:** Bu belge, BSTB ile TSE arasında imzalanan 28/09/2015 tarihli "Türk Standardları Enstitüsünün Tip Onayı Belgelendirme İşlemleri Kapsamında Görevlendirilmesine Dair Protokol" çerçevesinde hazırlanmış ve onaylanmıştır.

**Description:** This certificate, signed between MSIT and TSE on 28/09/2015 was prepared in the scope of "The protocol on the purpose of authorizing Turkish Standards Institute on the Type Approval Certification Procedures" and was approved.



T.C.  
SANAYİ VE TEKNOLOJİ BAKANLIĞI  
T.R.  
MINISTRY OF INDUSTRY AND TECHNOLOGY

Tip Onay No /Type Approval No : 43R – 010211



TÜRK STANDARDLARI ENSTİTÜSÜ  
TURKISH STANDARDS INSTITUTION

Kapsam Genişletme No / Extension No : -

## BİLDİRİM COMMUNICATION



Yönetmelik No:43 uyarınca emniyet cam malzeme tipi ile ilgili olarak,  
of a type of safety glazing material pursuant to Regulation No. 43.

Onay Verildi /Approval Granted  
Onay Kapsamı Genişletildi /Approval Extended  
Onay Reddedildi /Approval Refused  
Onay Geri Çekildi /Approval Withdrawn  
İmalat Tamamen Durduruldu /Production Definitely Discontinued

Onay No: 43R – 010211  
Approval No

Kapsam Genişletme No: -  
Extension No

- Emniyet Cam Malzemesinin Sınıfı**  
Class of safety glazing material : **DÜZGÜN TOKLAŞTIRILMIŞ CAM PANELLER**  
UNIFORMLY-TOUGHENED GLASS PANES  
Sınıf III (4,5 mm < e ≤ 6,5 mm), Renksiz  
(4,5 mm < e ≤ 6,5 mm Category III), Colourless  
Işık Geçirgenliği >%70 / Light Transmission >%70
- Cam Tipinin Tarifi**  
Description of the type of glazing : **Bkz. Ek 1 - İlave 2 / See Annex 1-Appendix 2**
- Ticari Adlar Ve Markalar**  
Trade names or marks : **“WILLGLASS”**
- İmalatçının Adı ve Adresi**  
Manufacturer's name and address : **EKPOL OTOMOTİV CAM SANAYİ VE  
TİCARET LTD. ŞTİ.  
Kayapa Sanayi Bölgesi Çiğdem Cad. No:4/A Nilüfer  
BURSA**
- Varsa, İmalatçının Temsilcisinin Adı ve Adresi**  
If applicable, name and address of manufacturer's  
representative : -
- Onaya Sunulduğu Tarih**  
Submitted For Approval On : **08.08.2018**
- Onay Deneylemlerini Yapmaktan Sorumlu Teknik Servis**  
Technical service responsible for conducting approval  
tests : **TÜRK STANDARDLARI ENSTİTÜSÜ**
- Teknik Servis Tarafından Verilen Raporun Tarihi**  
Date of report issued by that service : **26.07.2018**

ACIKLAMALAR: Bu belge, BSTB ile TSE arasında imzalanan 28/09/2015 tarihli “Türk Standardları Enstitüsünün Tip Onayı Belgelendirme İşlemleri Kapsamında Görevlendirilmesine Dair Protokol” çerçevesinde hazırlanmış ve onaylanmıştır.

Description: This certificate, signed between MSIT and TSE on 28.09.2015 was prepared in the scope of “The protocol on the purpose of authorizing Turkish Standards Institute on the Type Approval Certification Procedures” and was approved.



T.C.  
SANAYİ VE TEKNOLOJİ BAKANLIĞI  
T.R.  
MINISTRY OF INDUSTRY AND TECHNOLOGY



TÜRK STANDARDLARI ENSTİTÜSÜ  
TURKISH STANDARDS INSTITUTION

Tip Onay No /Type Approval No : 43R – 010211

Kapsam Genişletme No / Extension No : -

9. Teknik Servis Tarafından Verilen Raporun Sayısı : TSE.06.R-43.0233  
Number of report issued by that service
10. Onay, : Verildi/Reddedildi/ Kapsamı Genişletildi /Geri Çekildi  
Approval Is : Granted / Refused / Extended / Withdrawn
11. Onay Kapsamının Genişletilme Nedeni (Nedenleri) : -  
Reason(s) for extension of approval
12. Açıklamalar / Remarks : Cam Panel / Glass Panes
13. Yer / Place : ANKARA
14. Tarih / Date : 14.08.2018
15. İmza / Signature



**Ali BENGİ**  
TSE Ulaşım ve Lojistik Sistemleri Merkezi Başkanı

16. Onayı veren idari bölümce dosyalanan ve istek üzerine elde edilebilecek olan dokümanların listesi bu bildirimde eklenmiştir.

The list of documents filed with the Type Approval Authority which has granted approval and available on request is Annexed to this communication.

1. Test Raporu (Teknik Servis)(5 sayfa) / Test Report(5 pages)
2. Yönetmelik No:43'e göre Ek 1 – İlave 2 (1 sayfa) / Annex 1 –Appendix 2 to Regulation No. 43(1 page)

**AÇIKLAMALAR:** Bu belge, BSTB ile TSE arasında imzalanan 28/09/2015 tarihli "Türk Standardları Enstitüsünün Tip Onayı Belgelendirme İşlemleri Kapsamında Görevlendirilmesine Dair Protokol" çerçevesinde hazırlanmış ve onaylanmıştır.

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**EK 1 - İLAVE 2**  
(ANNEX 1 – APPENDIX 2)

**DÜZGÜN TOKLAŞTIRILMIŞ CAM PANELLER**  
(UNIFORMLY-TOUGHENED GLASS PANES)

(Yönetmelik No:43 Ek 5 veya Ek 9'da tanımlanan temel ve ikincil özellikler)  
(Principal and secondary characteristics as defined in Annex 5 or Annex 9 to Regulation No. 43)

Onay No: 43R – 010211  
Approval No

Kapsam Genişletme No: -  
Extension No

**Temel Özellikler / Principal characteristics**

- **Ön camlardan Başka (var/yok)** : VAR / YES  
*Other than windscreens (yes/no)*
- **Yavaş Hareket Eden Taşıtlar İçin Ön Cam(lar)** : YOK / NO  
*Windscreen(s) for slow moving vehicles*
- **Biçim Özelliği** : **Düz Ve Bombeli Cam Panel**  
*Shape category* *Flat And Segment Glass Panel*
- **Toklaştırma İşleminin Şekli** : **İşıl İşlem / Thermal**  
*Nature of toughening process:*
- **Kalınlık Sınıfı** : **Sınıf III (4,5 mm < e ≤ 6,5 mm)**  
*Thickness category* *Category III (4,5 mm < e ≤ 6,5 mm)*
- **Plastik kaplamanın (kaplamaların) yapısı ve tipi** : YOK / NO  
*Nature and type of plastics coating(s)*
- **Plastik kaplamanın (kaplamaların) anma kalınlığı** : YOK / NO  
*Nominal thickness of plastic coating(s)*

**İkincil Özellikler / Secondary characteristics**

- **Malzemenin yapısı (plaka, flotal, levha cam)** : FLOAT / FLOAT  
*Nature of the material (plate, float, sheet glass)*
- **Camın Renklendirilmesi (renksiz/hafif renkli)** : Renksiz / Colourless  
*Colouring of glass (colourless/tinted)*
- **Plastik kaplamanın (kaplamaların) renklendirilmesi** : YOK / NO  
*Colouring of plastics coating(s)*
- **İletkenlerin Varlığı (var/yok)** : VAR  
*Conductors incorporated (yes/no)* YES
- **Opak engelleyicinin Varlığı (var/yok)** : VAR / Serigrafi  
*Opaque obscuration incorporated (yes/no)* YES / Serigraphy

**Onaylanmış Kriterler / Approved criteria**

- **En Büyük Alan** : 2,50 m<sup>2</sup>  
*Greatest area (flat glass)*
- **En Küçük Açı** : 14°  
*Smallest angle*
- **En büyük cam elde etme alanı (bombeli cam)** : 2,50 m<sup>2</sup>  
*Greatest developed area (curved glass)*
- **En büyük bombe yüksekliği** : 34 mm  
*Greatest height of segment*

**Açıklamalar / Remarks**

: **İşık Geçirgenliği >%70 / Light Transmission >%70**

**Ekli Dokümanlar: -**  
*Documents attached: -*

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