



43R-00398

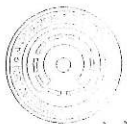
Appendix 2
**UNIFORMLY-TOUGHENED GLASS PANES**  
 (Principal and secondary characteristics as defined in  
 annex 5 or annex 9 to Regulation No. 43)

**APPROVAL No. 00398**
**EXTENSION No. -**
Principal characteristics:

Other than windscreens (yes/no) ..... : yes  
 Windscreen(s) for slow moving vehicles ..... : no  
 Shape category ..... : flat and curved  
 Nature of toughening process ..... : thermal  
 Thickness category ..... : II, 3.5 mm < e ≤ 4.5 mm  
 Nature and type of plastics coating(s) ..... : -  
 Nominal thickness of plastic coating(s) ..... : -

Secondary characteristics:

Nature of the material (plate, float, sheet glass) ... : float  
 Colouring of glass ..... : tinted  
 Colouring of plastics coating(s) ..... : -  
 Conductors incorporated (yes/no) ..... : no  
 Opaque obscuration incorporated (yes/no) ..... : no


Approved criteria:

Greatest area (flat glass) ..... : 1,98 m<sup>2</sup>  
 Smallest angle ..... : 20°  
 Greatest developed area (curved glass) ..... : 1,98 m<sup>2</sup>  
 Greatest height of segment ..... : 25 mm

Remarks:

Softeco Oy  
Raija Palo  
PL 146  
00161 Helsinki**PÄÄTÖS**Päiväys 18.1.2005  
Dno 54/206/2005  
Vite Hakemus 10.1.2005

Asia Tyyp hyväksynnän myöntäminen

Hyväksyntänumero 00398

Säädösperusta Ajoneuvolaki 11.12.2002/1090 ja Valtioneuvoston asetus ajoneuvojen hyväksynnästä 19.12.2002/1244.  
Moottoriajoneuvojen varusteiden ja osien hyväksymisehtojen yhdenmukaistamista ja hyväksymisten vastavuoroista tunnustamista koskeva sopimus (SopS 70/76; Geneven sopimus) ja sen 2. uudistettu painos.  
E-sääntö nro 43 muutettuna viimeksi 1.10.2004

Tyyppi ja käyttötarkoitus 00398 Appendix 2:n mukainen tasaisesti karkaistua lasia, valonläpäisy < 70 %

Kaupan nimi tai -nimet 

Jokainen tämän päätöksen tarkoittama tuote on merkittävä hyväksynnän perusteena olevien säädösten edellyttämällä hyväksyntämerkinnällä. Tällaisella merkinnällä varustetun tuotteen on vastattava tyyppi hyväksyntätestin hyväksytysti läpäisyyttä tuotetta. Hyväksyntä voidaan peruuttaa, mikäli ilmenee, etteivät hyväksyntämerkinnällä varustetut tuotteet täytä hyväksynnän perusteena olevien säädösten vaatimuksia.

Yksikön päällikkö   
Anna Malkamäki 

Ylitarkastaja   
Timo Kärkkäinen

Maksu 370 €

LIITTEET

Hyväksyntätodistus nro 00398

Sivuja 2



Communication concerning:

APPROVAL GRANTED  
~~APPROVAL EXTENDED~~  
~~APPROVAL REFUSED~~  
~~APPROVAL WITHDRAWN~~  
~~PRODUCTION DEFINITELY DISCONTINUED~~

of a type of safety glazing material pursuant to Regulation No. 43

**APPROVAL No. 00398****EXTENSION No. -**

1. Class of safety glazing material:
2. Description of the type of glazing:
3. Trade names or marks:
4. Manufacturer's name and address:
5. If applicable, name and address of manufacturer's representative:
6. Submitted for approval on:
7. Technical service responsible for conducting approval tests:
8. Date of report issued by that service:
9. Number of report issued by that service:

Uniformly-toughened glass panes, light transmission &lt; 70 %

Appendix 2



ORTAKCI CAM A.S.  
Buyuk Sanayi Ugur Sokak No. 39  
Inegol / Bursa, TURKEY

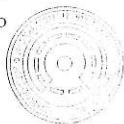
Softeco Oy  
P.O. Box 146  
FIN-00161 Helsinki, FINLAND

11.01.2005

VTT Technical Research Centre of Finland  
VTT Building and Transport  
P.O. Box 1801  
FIN-02044 VTT, FINLAND

04.01.2005

RTE4373/04



Date  
18.01.2005Dnr  
54/206/2005

2 (2)

10. Approval is **granted/refused/extended/withdrawn**
11. Reason(s) for extension of approval: -
12. Remarks: The original test report RTE4373/04 is attached to the type-approval E17 43R-00397.
13. Place **Helsinki**
14. Date **18.01.2005**
15. Signature   
  
**Anna Malkamäki**  
Head of Unit

16. The list of documents filed with the administrative service which has granted approval and available on request is annexed to this communication.

- Test report No. RTE4373/04, 1+3 pages
- Appendix 2 to Regulation No. 43, 1 page

Total number of pages: 5



43R-00398

## ECE-43 Regulation

### Testing of uniformly-toughened glass panes for approval No. E17-00397(398)

Requested by: ORTAKCI CAM A.S,  
Buyuk Sanayi Ugur Sokak No. 39, Inegol / Bursa, TURKEY



T018 (EN ISO/IEC 17025)



TECHNICAL DATA

Manufacturer: ORTAKCI CAM A.S.      Approval No: E17-00397(398)  
 Test number: R3SU00141      Date: 04.01.2005      Tested by: K. Mannersola

PRINCIPAL CHARACTERISTICS:

Manufacturer      ORTAKCI CAM A.S, Inegol / Bursa, TURKEY  
 Definition of glass      uniformly-toughened glass panes,  
    light transmission  $\geq 70\%$  (E17-00397),  
    light transmission  $< 70\%$  (E17-00398) →

Trademarks (2)



Shape and dimensions      flat and curved  
    max area      1,98 m<sup>2</sup>  
    max height of segment      25 mm  
    min angle      20°

Number of layers of glass      1  
 Nominal thickness      4 mm; II-category (3,5 mm  $< e \leq 4,5$  mm)  
 Nature and type of interlayer(s)      -  
 Nature of toughening process      thermal

SECONDARY CHARACTERISTICS

Nature of material      float  
 Colouring of interlayer(s)      -  
 Colouring of glass      clear / tinted  
 Shade bands      -  
 Electric wires      -  
 Attention      -



3,5 - 4,5 mm

27.70

V



43R-00398

<b>Requested by</b>	ORTAKCI CAM A.S, Buyuk Sanayi Ugur Sokak No. 39 Inegol / Bursa, TURKEY
<b>Order</b>	By Email Timo Suomi (Softeco Oy) / K. Mannersola
<b>Contact person at VTT</b>	Research Engineer Kai Mannersola <b>VTT TECHNICAL RESEARCH CENTRE OF FINLAND</b> VTT BUILDING AND TRANSPORT P.O. Box 1801, FIN-02044 VTT Tel. + 358-9-456 6257 Mob. +358-40-560 1021 Fax + 358-9-456 7006 E-mail: kai.mannersola@vtt.fi
<b>Task</b>	Testing of uniformly-toughened glass panes made by ORTAKCI CAM A.S. according to ECE-43-Regulation (01.10.2004).
<b>Samples</b>	The samples, which were taken from the store of manufacturer, were tested at ORTAKCI CAM A.S. in Inegol / Bursa in Turkey.
<b>Test Methods</b>	Tests were made according to ECE-43-Regulation.
<b>Results</b>	The uniformly-toughened glass panes made by ORTAKCI CAM A.S. meet requirements of ECE-43-Regulation.  The technical data of approval is in APPENDIX 1. The test results are in APPENDIX 2. The test results concern only objects that have been tested.



Espoo 4 January 2005



T018 (EN ISO/IEC 17025)

Group Manager

  
 Taru Haimala

Research Engineer

  
 Kai Mannersola

APPENDICES            2 pieces (2 pages)  
 DISTRIBUTION        Customer  
                              VTT

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FRAGMENTATION TEST A5/2.

Point of impact	In 50 mm x 50 mm square		Long fragments	Big fragments
	min.	max.	> 75 mm	> 3 cm <sup>2</sup>
1.	88	175	-	-
2.	101	196	-	-
3.	70	207	2	-
4.	93	181	-	-

Points of impact:

1. Edge
2. Side
3. Center
4. Min. radius


BALL TEST (226 g) A5/3.

Sample No.	Height of drop: 2,5 m		
	Colour	Result	Attention
1.	grey	acceptable	-
2.	grey	acceptable	-
3.	grey	acceptable	-
4.	grey	acceptable	-
5.	grey	acceptable	-
6.	grey	acceptable	-

LIGHT TRANSMISSION TEST A5/4.

Sample No.	Colour	Light transmission %	Attention
1.	clear	90,1	-
2.	clear	90,3	-
3.	clear	90,3	-

