

G-Ext EDF Technical Data Sheet (1)

Characteristics	Test Method	Tested Value	Required Value
Thickness	EN 438-2 section 5 4 mm 6 mm 8 mm 10 mm 13 mm 18 mm 22 mm	4.1 mm 6.2 mm 8.1 mm 10.2 mm 13.4 mm 18.3 mm 22.3 mm	3.0 ≤ t < 5.0 mm : ± 0.3 mm 5.0 ≤ t < 8.0 mm : ± 0.4 mm 8.0 ≤ t < 12.0 mm : ± 0.5 mm 8.0 ≤ t < 12.0 mm : ± 0.5 mm 12.0 ≤ t < 16.0 mm : ± 0.6 mm 16.0 ≤ t < 20.0 mm : ± 0.7 mm 20.0 ≤ t < 25.0 mm : ± 0.8 mm 25.0 ≤ t : According To Agreement customer / producer
Surface Quality	EN 438-2 section 4 Dirt , Spots and similar surface defects Fibers , Hairs and scratches	≤ 2 mm ² /m ² ≤ 20 mm/m ²	≤ 2 mm ² /m ² ≤ 20 mm/m ²
Density	ISO 1183 - 1	1.43	Min. 1.35 gr/cm ³
Wear Resistance	EN 438-2 section 10 EDS / EDF	IP = 235 Rev. Wear Value = 400 Rev.	Initial Point ≥ 150 Rev. Wear Value ≥ 350 Rev.
Scratch Resistance	EN 438-2 section 25 EDS / EDF	> 6 N	Textured Surface Min. 3 N
Impact Resistance	EN 438-2 Big Ball section 21 EDS / EDF t ≥ 6.0 mm	No Crack, 3.5 mm	1800 mm height : no crack , 10 mm Max.
Surface Crack @ 80°C 20 Hours	EN 438-2 section 24 CGS / CGF	Level 4	Min. level 4
Resistance to Dry Heat at 180°C	EN 438-2 section 16 CGS	Level 5	Min. level 4

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Characteristics	Test Method	Tested Value	Required Value
Resistance to Water Vapor	EN 438-2 section 14 EDS / EDF	Level 5	Min. level 4
Resistance to Boiling Water	EN 438-2 section 12 EDS / EDF t ≥ 5.0 mm Textured Surface Finish	$\Delta W = 0.5\%$ $\Delta T = 0.4\%$ Level 5	Max. 2% in weight Max. 2% in thickness Min. level 4
Resistance To Wet Condition (Immersion in water 65°C ; 48 Hours)	EN 438-2 section 15 EDS , EDF t ≥ 5.0 mm	$\Delta W = 1.0\%$ Level 5	Max. 5% in weight Color change Min. level 4

G-Ext EDF Technical Data Sheet (2)

Characteristics	Test Method	Tested Value	Required Value
Resistance to Staining	EN 438-2 section 26 EDS , EDF Group 1 + 2 Group 3	 Level 5 Level 5	 Min. level 5 Min. level 4
Flatness	EN 438-2 section 9 EDS , EDF $6.0 \leq t \leq 10.0$ mm	 1.87 mm	 Max. 3 mm / 1 M length
Light fastness	EN 438-2 section 27 ⁽¹⁾ EDS , EDF Gri skala ⁽⁴⁾	 Level 5	 Min. level 4
Resistance To UV Light 3000 Hour	EN 438-2 bölüm 28(2) EDS , EDF Grey Scale ⁽⁴⁾ Contrast Appearance	 Level 4 Level 5	 Min. level 3 Min. level 4
Resistance To Artificial Weathering 3000 Hour	EN 438-2 section 29(1) EDS , EDF Grey Scale ⁽⁴⁾ Contrast Appearance	 Level 4 Level 5	 Min. level 3 Min. level 4
Resistance to Climatic Shock	EN 438-2 section 17 EDS , EDF $t \geq 5.0$ mm	 L = 0.18% W = 0.36%	 L : Max. 0.3% W : Max. 0.6%

G-Ext EDF Technical Data Sheet (2)

Characteristics	Test Method	Tested Value	Required Value
Resistance to Climatic Shock	EN 438-2 section 19 EDS , EDF		
	Appearance	Level 5	Min. level 4
	Flexural Strength Index Ds	0.98	Min. 0.95
	Flexural Modulus Index Dm	0.97	Min. 0.95
Resistance To Climatic Changes	Gentas Internal Test ⁽⁵⁾ Appearance	Level 5	Min. level 4
Flexural Strength	EN ISO 178 EDS , EDF	110.7 MPa	Min. 80 MPa
Flexural Modulus	EN ISO 178 EDS , EDF	9834 MPa	Min. 9000 MPa
Tensile Strength	EN ISO 527 – 2 EDS , EDF	85 MPa	Min. 60 MPa
Coefficient Of Linear Thermal Expansion (COTE)	ASTM D696-08 ⁽³⁾	6.0 x 10-6 mm / mm °c	---

G-Ext EDF Technical Data Sheet (3)

Characteristics	Test Method	Tested Value	Required Value
Thermal Conductivity	ASTM C 518	0.416 W/mK	---
Total Volatile Organic Compound Emission	ASTM D5116	< 0.010 mg/m ² /hr	< 0.5 mg/m ² /hr
Fire Classification ⁽⁷⁾	EN 13501-1 4.0 ≤ t < 5.9 mm 6.0 ≤ t < 10.0 mm		
	ASTM E 84 – 10 6 – 10 mm	B S2 d0 B S1 d0 ERA – 14 – 095 22/10/2014	---
	BS 476 Part 7 : 1997	Class A	---
	DIN 5510-2:2009-05	Class 1	---
	0.8 mm 1.2 mm	S4 ; SR2 ; ST2 S2 ; SR2 ; ST2	
Color Difference ⁽⁸⁾	ISO 7724	Uni Colors : ΔE ≤ 1.0	---
	Gentas Internal Standard ⁽⁹⁾	Printed Designs : No Visual Difference	---
Resistance To SO ₂ ⁽⁶⁾	DIN 50018 50 tur	4 – 5 Grey Scale	---

Remarks :

- (1)Based on test method EN ISO 4892-1 and 4892-2.
- (2)Based on test method EN ISO 4892-3.
- (3)COTE test is conducted between +30°C To -30°C.
- (4)Grey Scale assessment according to EN 20105-A02.
- (5)Gentas Internal test procedure for resistance to climatic changes is available upon Request only.
- (6)“Acid Rain ” damp heat alternating atmosphere , 50 Cycles (Test Report Upon Request).
- (7)Upon Customer request.
- (8)The Color Difference refers to the color deviation from the master sample as agreed between Gentas and the customer per batch size (Refer to project batch size).
- (9)Gentas internal test method for evaluation of color difference in plain color design. As part of Gentas quality test , The color difference is evaluated and can be guaranteed according to the claimed value. Any other color testing method and/or tested value will not be acceptable by Gentas and can not be the base to any claim.

G-Ext EDF Cleaning Instructions :

The following cleaning instruction is suitable for periodic cleaning / maintaining and for cleaning after installation (Adhesive residue ets.) :

2) Use Non abrasive cloth (Cotton Based / Vileda® Microclean Cloth) soaked with one of the following cleaners :

- Regular cleaning soap 5% solution (any household soap is suitable for this purpose)
- Antistatic Cleaning + Care Agent for Plastics (AKU) from Burnus®
- Oxivir Plus Spray (Produced by Diversey – www.diverseysolutions.com)
- Sprint Spitfire Spray (Produced by Diversey – www.diverseysolutions.com)

All mechanical cleaning system , e.g. rotating brushes / wiper blades etc. , are unsuitable for the surface and may cause a permanent damage to the decorative surface .

3)Wipe the surface with non abrasive cloth from any residue of the cleaner

4)Wipe the surface with Non abrasive clothe soaked with regular water and leave the surface for 5 minutes in order to dry .

5)Clean the surface again with Dry cloth .

6)For cleaners preparation method – follow producer instructions

7) G 7) The following chemicals **Should Not Be Used for Cleaning the G-Ext Surface :**

7.1 Hard base solutions : Ammonium Hydroxide, Sodium Hydroxide, Sodium Hypochlorite, Sodium Chloride.

7.2 Hard acidic solutions : Hydrochloric Acid, Sulphuric Acid, Nitric Acid, Phosphoric Acid, Acetic Acid, Hydrofluoric Acid, Chromic Acid, Formaldehyde, Formic Acid, Phenol.

7.3 Reagents : Silver Nitrate, Potassium Permanganate, Ferric (III) Chloride, Copper Sulphate, Iodine Tincture.

7.4 Organic solvents : Furfural, Acetone, Ethyl alcohol, Methyl Ethyl Ketone, Dichloromethane, Ethylacetate, n – Butyl Acetate, n – Hexane, Methyl Alcohol, Methyl Isobutyl Ketone, TetraHydroFurane (THF), Toluene, Tri Chloro Ethylene, Xylene, Methyl Violet 2B.

7.5 Organic compounds : Mono Ethylene Glycol (MEG), Di Ethylene Glycol (DEG)