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a touch to life

G-EXT-CORE

G-Ext-Core Technical Data Sheet (1)

Characteristics	Test Method	Tested Value	Required Value
Thickness	EN 438-2 Section 5 4 mm Nominal 6 mm Nominal 8 mm Nominal 10 mm Nominal 13 mm Nominal 18 mm Nominal 22 mm Nominal	 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
Density	ISO 1183 - 1	1.4	Min. 1.35 ± 0.05 g/cm^3
Wear Resistance	EN 438-2 Section 10 EDS/EDF	 IP = 235 Rev. Wear Value = 400 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.
Resistance to Crazing 20 Hours @ 80°C	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 Textured Surface Finish	 Level 5	 Min. level 4
Resistance to Water Vapor	EN 438-2 Section 14 EDS/EDF Textured Surface Finish	 Level 5	 Min. Level 4

Characteristics	Test Method	Tested Value	Required Value
Resistance to Boiling Water	EN 438-2 Section 12 EDS / EDF t ≥ 5.0 mm Textured Surface Finish	 ΔW = 0.5% ΔT = 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	 ΔW = 1.0% Level 5	 Max. 5% in Weight Color Change Min. Level 4
Resistance to Staining	EN 438-2 Section 26 EDS, EDF Group 1 + 2 Group 3	 Level 5 Level 5	 --- ---

G-Ext-Core Technical Data Sheet (2)

Characteristics	Test Method	Tested Value	Required Value[2]
Flatness	EN 438-2 Section 9 EDS, EDF 6.0 ≤ t ≤ 10.0 mm	1.87 mm	Max. 3 mm / 1 M Length
Light Fastness[10]	EN 438-2 Section 27[1] EDS, EDF Grey Scale[4]	Level 5	---
Resistance to UV Light 3000 Hour[10]	EN 438-2 Section 28[2] EDS, EDF Grey Scale[4] Contrast Appearance	 Level 4 Level 5	 --- ---
Resistance to Artificial Weathering 3000 Hour[10]	EN 438-2 Section 29[1] EDS, EDF Grey Scale[4] Contrast Appearance	 Level 4 Level 5	 --- ---
Dimensional Stability at Elevated Temperature (70°C; 90% RH)	EN 438-2 Section 17 EDS, EDF t ≥ 5.0 mm	 L: 0.18% W: 0.36%	 L: Max. 0.3% W: Max. 0.6%
Resistance to Climatic Shock	EN 438-2 Section 19 EDS, EDF Appearance Flexural Strength Index Ds Flexural Modulus Index Dm	 Level 5 0.98 0.97	 Min. Level 4 Min. 0.95 Min. 0.95
Resistance to Climatic Changes	Gentas Internal Test[5] Appearance	 Level 5	 Min. Level 4
Flexural Strength	EN ISO 178 EDS, EDF	114 MPa	Min. 80 MPa

Characteristics	Test Method	Tested Value	Required Value
Flexural Modulus	EN ISO 178 EDS, EDF	96.1 MPa	Min. 80 MPa
Tensile Strength	EN ISO 527 – 2 EDS, EDF	85 MPa	Min. 60 MPa
Coefficient of Linear Thermal Expansion (COTE)	ASTM D696-08[3]	6.0×10^{-6} mm/mm °C	---
Thermal Conductivity	ASTM C 518	0.416 W/mK	---
Total Volatile Organic Compound Emission	ASTM D5116	< 0.010 mg/m²/hr	< 0.5 mg/m²/hr

G-Ext-Core Technical Data Sheet (3)

Characteristics	Test Method	Tested Value	Required Value[2]
Fire Classification[7]	EN 13501-1 0.5 ≤ t < 5.6 mm 6.4 ≤ t < 25.0 mm	B S2 d0 B S2 d0 TS 49515 (21.2.2011)	--- ---
	6 mm ± 0.4 mm	B S1 d0 TS 149845 (22.5.12)	---
	ASTM E 84 – 10	Class A	
	BS 476 Part 7: 1997	Class 1	
	DIN 5510-2:2009-05 0.8 mm 1.2 mm	S4 ; SR2 ; ST2 S2 ; SR2 ; ST2	
Color Difference[8], [10]	ISO 7724	Uni Colors: ΔE ≤ 1.0	---
	Gentas Internal Standard[9]	Printed Designs: No Visual Difference	---
Resistance to SO_2[6]	DIN 50018 50 Cycles	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 printed designs (Wood Grain/Abstract).
(10) The property is related to the core performance.

G-Ext-Core Cleaning Instructions

1. 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 water/regular cleaning soap 5% solution (any household soap is suitable for this purpose) / Antistatic Cleaning + Care Agent for Plastics (AKU) from Burnus®. 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. Clean the surface with non-abrasive clothe soaked with regular water and leave the wet surface for 5 minutes in order to dry.
4. After 5 minutes soak the wet cloth with the soap solution / Cleaning + Care Agent for Plastics (AKU) from Burnus® and clean the surface without damaging the surface.
5. Leave the cleaned surface for 5 minutes in order to dry.
6. Clean the surface again with wet cloth.
7. The following chemicals **Should Not Be Used for Cleaning the G-Ext-Core:**

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, Tetra Hydro Furane (THF), Toluene, Tri Chloro Ethylene, Xylene, Methyl Violet 2B.

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