FENIX NTM™ is an **innovative material** which stands out for specific features:

- **High resistance to acid solvents and chemicals**
- **Scratches, dry heat and impact resistance**
- **Enhanced anti-bacterial properties**
- **Anti-fingerprint**
- **Thermal healing of microscratches**

FENIX NTM®

High resistance to acid solvents and chemicals

Resistance to dry heat

Resistance to impact

Enhanced anti-bacterial properties

Resistance to scratches and abrasion

Dimensional stability even at high temperature changes

Hygienic

Suitable for contact with food

Mold resistant

Hydro-repellent

Easy to clean

Thermal healing of microscratches

Antistatic

Anti-fingerprint

Rub resistance

Soft touch

Self-supporting (only in 10 and 12 min)

Low light reflectivity, extremely matt surface

Lightfastness

Excellent intensity and colour depth

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FENIX NTM™ is produced by the simultaneous application of heat (approx. 150°C) and high specific pressure (> 7Mpa) in order to have a homogeneous non-porous high density product. The core structure of FENIX NTM™ is impregnated with thermosetting resins. Its external surface involves the use of nanotechnology and its decor is obtained through next generation resins developed thanks to Arpa Industriale's research. **FENIX NTM™ is suitable for different applications: laboratory workbenches, hospitality, healthcare, bathrooms, furniture** (tables, bookshelves, partitions, chairs, etc.). FENIX NTM™ is a registered trademark by Arpa Industriale.

PROPERTIES	TEST METHOD	PROPERTIES OR ATTRIBUTE	UNIT	VALUES	
SURFACE QUALITY					
Surface quality	EN 438-2.4	Spots, dirt and similar surface defects	mm2 / m2	≤ 1	
		Fibres, hair and scratches	mm / m2	≤ 10	
DIMENSIONAL TOLERANCES					
Dimensional tolerances	EN 438-2.5	Thickness tolerance	mm	10,0 ± 0,50 12,0 ± 0,60	10,0 ± 0,70 12,0 ± 0,80
	EN 438-2.6	Length and width	mm	+ 10 / - 0	
	EN 438-2.7	Straightness of edges	mm / m	≤ 1,5	
	EN 438-2.8	Squareness	mm / m	≤ 1,5	
	EN 438-2.9	Flatness (measured on full-size sheet)	mm / m	≤ 3	≤ 5
GENERAL PROPERTIES					
Resistance to surface wear	EN 438-2.10	Initial point	Revolutions	≥ 200	
		Wear value	Revolutions	≥ 350	
Resistance to immersion in boiling water	EN 438-2.12	Mass increase	%	≤ 2,0	≤ 3,0
		Thickness increase	%	≤ 2,0	≤ 4,0
		Appearance	Rating	≥ 4	
Resistance to water vapour	EN 438-2.14	Appearance	Rating	≥ 4	
Resistance to dry heat (180°C / 20')	EN 438-2.16	Appearance	Rating	≥ 4	
Resistance to wet heat (100°)	EN 12721:1997	Appearance	Rating	≥ 4	
Dimensional stability at high temperatures	EN 438-2.17	Cumulative dimensional change	Longitudinal %	≤ 0,20	≤ 0,40
		Cumulative dimensional change	Transversal %	≤ 0,50	≤ 0,70
Resistance to impact with large diameter ball	EN 438-2.21	Drop height	mm	≥ 800	
		Indentation diameter	mm	≤ 8	
Resistance to cracking	EN 438-2.24	Appearance	Rating	≥ 4	
Resistance to scratching	EN 438-2.25	Appearance	Rating	≥ 4	
Resistance to staining	EN 438-2.26	Appearance - Group 1 and 2	Rating	≥ 5	
		Appearance - Group 3	Rating	≥ 4	
Light fastness (Xenon-arc)	EN 438-2.27	Contrast	Grey scale rating	≥ 4	
Resistance to cigarette burns	EN 438-2.30	Appearance	Rating	≥ 3	
Flexural Modulus	EN ISO 178	Stress	Mpa	≥ 9000	
Flexural strength	EN ISO 178	Stress	Mpa	≥ 80	
Surface specular reflectance	ISO 2813	Surface specular reflectance	Gloss unit	Indicative values 0,2 at 20° 1,5 at 60°, 10 at 85°	
Electrostatic property	EN 61340-4-1	Surface electrical resistance	Ω	Values between 1 x 109 and 1 x 1012	
Density	EN ISO 1183	Density	g / cm3	≥ 1,35	
Resistance to microscratches	EN 16094	Resistance to micro-scratches	Method A	MSR-A2 solid black MSR-A1 dark printing	
			Method B	MSR-B2 solid black MSR-B1 dark printing	
FIRE PERFORMANCES					
Reaction to fire	EN 13501	Rating per thickness = 10mm	Class	C-s1, d0 (metal frame)	-
OTHER PROPERTIES					
Acids resistance	SEFA 8-PL-2010 method 8.1	Chemical spot test	Passing / not passing	Passing	
Formaldehyde emission	EN 717- 2	Gas analysis	mg / (m2 x h)	0,2 - 0,4	
	EN 13986	Formaldehyde emission rating	Rating	E1	
Hygiene	NSF	NSF / ANSI 35	Passing / not passing	Passing	
Volatile Organic Chemical emissions	Greenguard IAQ according to EPA TO-17 and ASTM D 6196 EPA TO-11A and ASTM D 5197	Individual VOCs	TLV	≤ 0,1	
		Formaldehyde	ppm	≤ 0,025	
		TVOC	mg / m3	≤ 0,25	
		Total Aldehydes	ppm / ppb	≤ 0,05	
		Total particles	mg / m3	≤ 0,05	
Contact with food - Overall migration	EN 1186-3	3% Acetic Acid 24h at 40°C 50%	mg / dm2	< 10	
		Ethanol 24h at 40°C 95%			
	EN 1186-14	Ethanol 24h at 40°C Isooctane 24h at			
		3% Acetic Acid 24h at 40°C			
Contact with food - Formaldehyde specific migration	EN 13130-23	3% Acetic Acid 24h at 40°C	mg / kg	< 15	
Evaluation of micro-organisms action	JIS Z 2801	Antimicrobial activity after 24h at 35°C	Bacterial viability: - Log reduction - Reduction %	> 2,4 > 99,9	

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