

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



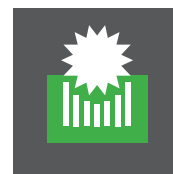
Soft touch



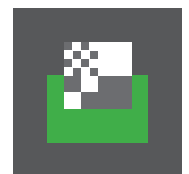
Self-supporting (only in 10 and 12 min)



Low light reflectivity, extremely matt surface



Lightfastness



Excellent intensity and colour depth

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 Fibres, hair and scratches | mm ² / m ² mm / m ² | ≤ 1 ≤ 10 |
| DIMENSIONAL TOLERANCES | | | | |
| Dimensional tolerances | EN 438-2.5 | Thickness tolerance | mm | 10,0 ± 0,50 12,0 ± 0,60 |
| | 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 10 ⁹ and 1 x 10 ¹² |
| Density | EN ISO 1183 | Density | g / cm ³ | ≥ 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 / (m ² 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 / m ³ | ≤ 0,25 |
| | | Total Aldehydes | ppm / ppb | ≤ 0,05 |
| | | Total particles | mg / m ³ | ≤ 0,05 |
| Contact with food - Overall migration | EN 1186-3 | 3% Acetic Acid 24h at 40°C 50% | mg / dm ² | < 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 |