

tierTM

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TECHNICAL DATA SHEET 2022



A PRODUCT BY **EVA-LAST**[®]
INSPIRED BY NATURE, DESIGNED FOR LIFE.

www.tierflooring.com

MANUFACTURERS DETAILS
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Product name: Eva-Last® TIER™ flooring products.

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TIER™ indoor flooring

Having over a decade of experience in the field of extrusion, Eva-Last® has adapted the technique to develop a revolutionary extruded stone plastic composite vinyl flooring.

Our aim is to continually strive to improve our products to give you the most cost-effective product packed with much more benefits in the long run. The manufacturing process also includes a new premixing technique and additional quality control procedure.

Surface properties

| Property | Applicable standard | Applicable test method | Requirement | Result | Conclusion |
|--------------------------------|---------------------|-----------------------------|--|--|---------------------------------|
| Wear resistance | - | ISO 1518-1 | ≤ 0.015 g/1 000 rev | 0.01 g | Pass |
| | EN 16511 | EN 13329 | ≥ 4 000 cycles | ≥ 4 000 cycles | Class 34, heavy commercial |
| | NALFA LF 01-2011 | NALFA LF 01-2011 | ≥ 6 000 cycles | ≥ 6 000 cycles | Class 4, heavy commercial |
| Scratch | - | ISO 1518-1 | ≥ 2 500 g | 3 200 g | Pass |
| Surface bonding | NALFA LF 01-2011 | EN311/NALFA LF 01-2011 | ≥ 1.25 N/mm ² | 1.56 N/mm ² | Class 4, heavy commercial |
| Static load (250 lbs/115 kg) | NALFA LF 01-2011 | ASTM F970 | ≥ 8 MPa | 15 MPa | Class 4, heavy commercial |
| Residual indentation | ASTM F1700 | ASTM F1914 | ≤ 8 % (140 lbs/63 kg) | 1.70 % | Pass |
| | EN 16511 | EN 433/ISO 24343-1 | ≤ 0.15 mm | 0.03 mm | Class 34, heavy commercial |
| Impact resistance (big ball) | EN 16511 | EN 13329 | ≥ 1 800 mm | > 1 800 mm | IC3, Class 34, heavy commercial |
| | NALFA LF 01-2011 | NALFA LF 01-2011 | ≥ 1 400 mm | > 1 400 mm | Class 4, heavy commercial |
| Impact resistance (small ball) | EN 13329 | EN438 | ≥ 15 N | 23 N | IC3, Class 34, heavy commercial |
| | NALFA LF 01-2011 | NALFA LF 01-2011 | ≥ 500 mm (19.7 in) | 900 mm | Class 4, heavy commercial |
| Slip resistance | EN14041 | EN 13893 | DryCOF ≥ 0.3 | 0.51 | Class DS |
| | - | ASTM C1028 | ≥ 0.5 | 0.62 | Meet ADA recommendation |
| | - | D 51130 | ≥ R9 | R9 | Anti-slip resistance R9 |
| Color fastness to light | EN 13329 | ISO 105-B02:1994, Method 3a | ≥ Grade 6 | > 6 | Pass |
| | NALFA LF 01-2011 | NALFA LF 01-2011 | Slight change only | Slight change only | Class 4, heavy commercial |
| Resistance to staining | EN 16511 | EN 438-2 | Group 1 and 2: grade 5, group 3: grade 4 | Group 1 and 2: grade 5, group 3: grade 4 | Class 34, heavy commercial |
| | ASTM F1700 | ASTM F925 | Slight change only | No change | Pass |
| | NALFA LF 01-2011 | NALFA LF 01-2011 | Slight change only | No change | Class 4, heavy commercial |

Chemical properties

| Property | Applicable standard | Applicable test method | Requirement | Result | Conclusion |
|---|-----------------------------------|---------------------------------|---|----------------------|--|
| Formaldehyde emission | CARB2 | ASTM 6007 | ≤ 0.11 ppm Release ≤ 0.124 mg/m ³ | Undetected | CARB2 |
| | EN 14041 | EN 717-1 | Release ≤ 0.124 mg/m ³ | Undetected | E0 |
| VOC | Decret No2011-321 | ISO 16000 | TVOC < 1000 µg/m ³ | 31 µg/m ³ | VOCA+ |
| | DIBT | ISO 16000 | TVOC < 1000 µg/m ³ | 29 µg/m ³ | Meet AgBB requirement - U mark certified |
| | Floorscore | Californian 01350 | Within CREL/TAC | 26 | Floorscore certified |
| Ortho-phthalates | Prop 65 | Spectrometry | Ortho-phthalate free | Undetected | Ortho-phthalate free, Comply with Prop 65 |
| Lead | CPSIA | CPSC-CH-E-1002-08 | ≤ 90 ppm | Undetected | Meet children toy regulation |
| PAHs | EU REACH regulation No. 1907/2006 | Spectrometry and chromatography | < 1 mg/kg | 0.7 mg/kg | Meets requirement of a product that can be placed in a mouth |
| PCP | EN 14041 | EN 12673 | < 1 ppm | Undetected | Pass |
| Substances of Very High Concern (SVHC) (mercury, chromium VI, Cadmium, SCCp, benzene, Xylene, tributyltin, etc) | EU REACH regulation No. 1907/2006 | Spectrometry and chromatography | ≤ 0.1 % (w/w) | Undetected | REACH compliant |

Physical properties

| Property | Applicable standard | Applicable test method | Requirement | Result | Conclusion |
|---|---------------------|------------------------|---|--|--|
| Heat exposure resistance 80°C/180°F | EN 16511 | ISO 23999 | ΔW/ΔL ≤ 0.25 % | 0.03 % | Class 34, heavy commercial |
| | ASTM 1700 | ASTM F2199 | ΔW/ΔL ≤ 0.16 % | 0.03 % | Pass |
| Dimensional variation (humidity change) | EN 16511 | ISO 24339 | ΔW/ΔL ≤ 0.15 % | ΔW/ΔL ≤ 0.01 % | Class 34, heavy commercial |
| Swelling after submersion in water | EN 16511 | ISO 24336 | ≤ 12 % | 0% | Class 34, heavy commercial |
| | NALFA LF 01-2011 | NALFA LF 01-2011 | ≤ 12 % | 0% | Class 4, heavy commercial |
| Impact sound reduction (IIC) | - | ASTM E492-09 | - | IIC = 71 | IIC = 71 |
| Sound transmission reduction (STC) | - | ASTM E90-09 | - | STC = 75 | STC = 75 |
| Locking strength (23°C) | EN 16511 | ISO 24334 | Long side ≥ 2.0 kN/m Short side ≥ 3.5 kN/m | Long side ≥ 6.3 kN/m, Short side ≥ 5.4 kN/m | Class 34, heavy commercial |
| Thermal conductivity | EN 14041 | EN 12667 | - | 0.173 W/(mK) | Suitable for underfloor heating system |
| Thermal resistance (R value) | - | ASTM C518 | - | 0.58 m ² K/W | Suitable for underfloor heating system |
| Reaction to fire | EN 14041 | EN 13051-1 | - | CHF = 9.4 kW/m ² | Class Bfl - s1 |
| Fire resistance (CHF) | - | ASTM E648/662 | - | 0.94 W/cm ² | Class 1 |

Acoustic properties

| Property | Applicable standard | Applicable test method | Requirement | Result | Conclusion |
|------------------------------------|---------------------|------------------------|-----------------------|---------------------------|-----------------------|
| Impact sound | ISO 717-2 | ISO 10140-3 | Application dependent | L _{n,w} = 51 dB | Application dependent |
| | | | | C _i = 1 dB | |
| Impact sound reduction | ISO 717-2 | ISO 10140-3 | Application dependent | ΔL _w = 22 dB | Application dependent |
| | | | | C _{l,a} = -11 dB | |
| Impact sound reduction (IIC) | ASTM E492 | ASTM E492-09 | Application dependent | IIC = 71 | Application dependent |
| Sound transmission reduction (STC) | ASTM E90 | ASTM E90-09 | Application dependent | STC = 75 | Application dependent |



OTHER INFORMATION

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