

Description

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| Polyisocyanurate rigid foam | |
| Blowing agents: | HFCs/CFCs/HCFCs-free |
| Ozone Depletion Potential (ODP): | 0 |
| Global warming potential (GWP): | <10 |
| Approvals, Homologations, Compliances | ASTM C 591–Type IV–Grade 2 |

Typical characteristics

| Color | | | Tan |
|---|-------------------------------|---|---------------|
| Nominal density | ASTM D1622/EN 1602/EN ISO 845 | lb/ft ³ (kg/m ³) | 2 (32) |
| Compressive strength – Parallel (74°F/23°C) | ASTM D1621/EN 826 | psi (MPa) | 32.0 (0,220) |
| Compressive strength - Perpendicular (weakest direction), (74°F/23°C) | ASTM D1621/EN 826 | psi (MPa) | 22.0 (0,151) |
| Compressive strength – Parallel (-265°F/-165°C) | ASTM D1621/EN 826 | psi (MPa) | >40.0 (0,280) |
| Compressive strength - Perpendicular (weakest direction), (-265°F/-165°C) | ASTM D1621/EN 826 | psi (MPa) | >26.5 (0,182) |
| Tensile strength - Parallel (74°F/23°C) | ASTM D1623-A/EN 1607 | psi (MPa) | 50.0 (0,345) |
| Tensile strength - Perpendicular (weakest direction), (74°F/23°C) | ASTM D1623-A/EN 1607 | psi (MPa) | 36.0 (0,250) |
| Tensile strength - Parallel (-265°F/-165°C) | ASTM D1623-A/EN 1607 | psi (MPa) | >41.1 (0,283) |
| Tensile strength - Perpendicular (weakest direction), (-265°F/-165°C) | ASTM D1623-A/EN 1607 | psi (MPa) | >29.0 (0,200) |
| Tensile E-modulus - Parallel (-265°F/-165°C) | ASTM D1623-A/EN 1607 | psi (MPa) | <470 (3,241) |
| Shear strength - Perpendicular (weakest direction), (74°F/23°C) | ASTM C273/EN 12090 | psi (MPa) | 23.0 (0,160) |
| Thermal conductivity - Initial (75°F/24°C) | ASTM C518/ASTM C177/EN 12667 | BTU-in/hr-ft ² ·°F (mW/mK) | 0.160 (22,9) |
| Thermal conductivity - 180 days (75°F/24°C), (25 mm thickness sample aged 180 days at 23°C, 50% R.H.) | ASTM C518/ASTM C177/EN 12667 | BTU-in/hr-ft ² ·°F (mW/mK) | 0.183 (26,0) |
| Coefficient of thermal stress resistance CTSR (-265°F/74°F, -165°C/+23°C) | CINI 2.7.01 | | >3 |
| Poisson's Ratio (-265°F/-165°C) | ASTM D1623/EN 1607 | | 0.4 |
| Coefficient of linear thermal expansion CTE (-321°F/+74°F,-196°C/+23°C) | ASTM D696/EN 13471 | 1/°F·10E-6 (1/K·10E-6) | <33.3 (60) |
| Surface burning characteristics | ASTM E84 | FSI | <25 |
| Surface burning characteristics | ASTM E84 | Smoke Dev. | <450 |
| Horizontal burning characteristics | UL 94/ASTM D4986 | | HF-1 |



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| Leachable chlorides | ASTM C871/EN 13468 | ppm | <20 |
| pH | ASTM C871/EN 13468 | | 6.0-7.0 |
| Dimensional stability (-40°F/-40°C, 7 days) - linear change (length) | ASTM D2126/EN 1604 | % | 0.5 |
| Dimensional stability (+212°F/+100°C, 7 days) - Linear change (length) | ASTM D2126/EN 1604 | % | 1.0 |
| Dimensional stability (+158°F/70°C, 97% R.H., 7 days) - Linear change (length) | ASTM D2126/EN 1604 | % | 2.5 |
| Water vapour transmission rate (74°F/23°C, 50% R.H.) | ASTM E96/EN 12086 | grains/h-ft ² (g/h-m ²) | <1.573 (1,1) |
| Water vapor permeability (74°F/23°C,50% R.H.) | ASTM E96/EN 12086 | Perm-inch (ng/s·m·Pa) | <4 (5,8) |
| Water absorption by volume | ASTM C272 | % | <0.6 |
| Water absorption by volume | ASTM D2842/EN 12087/ISO 2896 | % | <3.5 |
| Operating temperature | | °F (°C) | -320/+300 (-196/+149) |
| R-Value - 180 days, 1 inch (75°F/24°C) | ASTM C518/EN 12667 | hr·ft ² ·°F/BTU | 5.46 (0,97) |
| Closed-cell content | ASTM D6226/EN ISO 4590 | % | >95 |
| Hot-Surface Performance (300°F/149°C) | ASTM C411 | | Pass |
| Surface burning characteristic, 3"panel | CAN/ULC S102-18 | FSI | ≤20 |
| Surface burning characteristic, 3"panel | CAN/ULC S102-18 | Smoke Dev. | ≤155 |

Handling notice

Terms "parallel" and "perpendicular" are referred to slab/specimen/block thickness direction.

Above 300°F, discoloration and surface carbonization will occur, involving possible changes of the physical and mechanical properties of the material.

In some applications polyurethane may present fire risks, e.g. if exposed to fire or to excessive heat in presence of oxygen or air, including when welding or cutting with torches.

It is the Customer's responsibility to determine if product described herein is appropriate for Customer's purposes and end-use and to ensure that working place, storage and disposal practices are in compliance with any applicable law.

Remarks

For usage information, personal protective equipment, transport, storage and disposal of waste it is essential to refer to the Material Safety Data Sheets.

Values shown are determined from laboratory tests and obtained under controlled conditions; they outline typical characteristics and they do not constitute anyhow a sales specification; they are based on DUNA-USA's current knowledge and experience of the products when properly stored, handled and applied in accordance with our recommendations.

This Technical Data Sheet cancels and replaces any other previous issue.

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