

## Description

Polyisocyanurate rigid foam

Blowing agents:

CFCs/HCFCs-free

Approvals, Homologations, Compliances

ASTM C591 - Type II Grade 2

## Characteristics

Color	Green
Nominal density	ASTM D1622/EN 1602/EN ISO 845 lb/ft <sup>3</sup> (kg/m <sup>3</sup> ) 2.5 (40)
Compressive resistance – Parallel (74°F/23°C)	ASTM D1621/EN 826 psi (MPa) 45.0 (0,309)
Compressive resistance - Perpendicular (74°F/23°C)	ASTM D1621/EN 826 psi (MPa) 31.0 (0,213)
Compressive resistance – Parallel (-265°F/-165°C)	ASTM D1621/EN 826 psi (MPa) >50.8 (0,350)
Compressive resistance - Perpendicular (-265°F/-165°C)	ASTM D1621/EN 826 psi (MPa) >37.7 (0,260)
Tensile strength - Parallel (74°F/23°C)	ASTM D1623-A/EN 1607 psi (MPa) 63.0 (0,435)
Tensile strength - Perpendicular (74°F/23°C)	ASTM D1623-A/EN 1607 psi (MPa) 49.0 (0,340)
Tensile strength - Parallel (-265°F/-165°C)	ASTM D1623-A/EN 1607 psi (MPa) >55.0 (0,379)
Tensile strength - Perpendicular (-265°F/-165°C)	ASTM D1623-A/EN 1607 psi (MPa) >42.0 (0,290)
Tensile E-modulus - Parallel (-265°F/-165°C)	ASTM D1623-A/EN 1607 psi (MPa) <670 (4,6)
Shear strength - Perpendicular (74°F/23°C)	ASTM C273/EN 12090 psi (MPa) 28.0 (0,195)
Thermal conductivity - Initial (75°F/24°C)	ASTM C518/EN 12667 BTU-in/hr-ft <sup>2</sup> ·°F (mW/mK) 0.159 (22,8)
Thermal conductivity - 180 days (75°F/24°C)	ASTM C518/EN 12667 BTU-in/hr-ft <sup>2</sup> ·°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 >4.0
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) <27.8 (50)
Surface burning characteristics	ASTM E84 FSI <25
Surface burning characteristics	ASTM E84 Smoke Dev. <450
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 % ±1.5



Water vapour transmission rate (74°F/23°C, 50% R.H.)	ASTM E96/EN 12086	grains/h-ft <sup>2</sup> (g/h·m <sup>2</sup> )	<1.66 (1,16)
Water vapor permeability (74°F/23°C,50% R.H.)	ASTM E96/EN 12086	Perm-inch (ng/s·m·Pa)	3.5 (5,1)
Water absorption by volume	ASTM C272	%	<0.5
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 <sup>2</sup> ·°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

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## 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.

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## 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.

DUNA-USA does not accept responsibility for incorrect use of its products as it cannot ensure the correct methods of application have been followed; we therefore specifically disclaim any liability for consequential or incidental damages of any kind, including lost profits.

DUNA-USA reserves the right to change the data in this information sheet without any prior notice.