

## The high performance insulation foam

Divinycell is a high strength, closed cell, co-polymer foam with excellent insulation properties. It is especially suitable as insulation in low and cryogenic temperatures, featuring very low thermal conductivity. Resistance to hydrocarbons makes it the perfect material for LNG storage insulation. Divinycell has a long track record as insulation in LNG Carriers as well as bottom insulation in land based LNG storage tanks.

A special grade, Divinycell CY, is approved rigid insulation for the GTT (Gas Transport & Technigaz) NO96 design both as insulating and supporting type and have exceptional compressive properties parallel to the plane. Easy cutting and machining is another attractive feature of the foam, appreciated by manufacturers and installers.

### Mechanical properties Divinycell® CY

Property	Test Procedure	Remarks	Unit	CY33	CY55	CY100
Compressive Strength <sup>1</sup>	ASTM D 1621	-	MPa	≥ 0.19	≥ 0.65	≥ 1.5
Compressive Modulus <sup>1</sup>	ASTM D1621-B-73	-	MPa	≥ 9	≥ 28.5	≥ 66
Deformation due to Creep <sup>1</sup>	ISO 7850	At 0.24 MPa for 1000 hrs	%	N/A <sup>2</sup>	< 1% ~	< 1% ~
Thermal Conductivity	ASTM C 518	See graph on page 2	W/mK	< 0.030	<0.030	<0.036
Thermal Contraction Coefficient	ASTM E 228	Between +20°C and -196°C	1/°C	~ 40*10 <sup>-6</sup>	~ 40*10 <sup>-6</sup>	~ 40*10 <sup>-6</sup>
Nominal Density	ASTM D 1622	-	kg/m <sup>3</sup>	38	60	120

1. Parallel to the plane
2. Not Applicable being CY33 insulating material only

*Nominal value* is an average value of a mechanical property at a nominal density

## Product Characteristics

- Excellent cryogenic insulation
- High mechanical properties
- Resistant to hydrocarbons
- Low water absorption
- Closed cell
- Low thermal expansion
- Fast and easy to machine
- Non friable
- Good creep behaviour

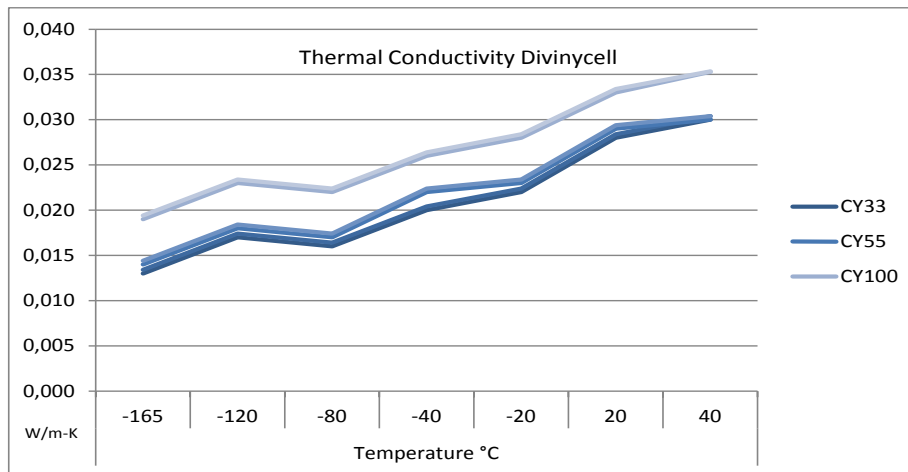
# Technical Characteristics

## Thermal Conductivity Divinycell® CY

Material	Temperature °C						
	-165	-120	-80	-40	-20	20	40
CY33	0,013	0,017	0,016	0,020	0,022	0,028	0,030
CY55	0,014	0,018	0,017	0,022	0,023	0,029	0,030
CY100	0,019	0,023	0,022	0,026	0,028	0,033	0,035

Continuous operating temperature is typically -200°C to +70°C.

Maximum processing temperature is dependent on time, pressure and process conditions. Therefore users are advised to contact Diab Technical Services to confirm that Divinycell CY is compatible with their particular processing parameters.



## Physical characteristics

Format		Unit	CY33	CY55	CY100
Plain sheets	Length	mm	2650	2650	2000
	Width	mm	1250	1220	1000

### Disclaimer:

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