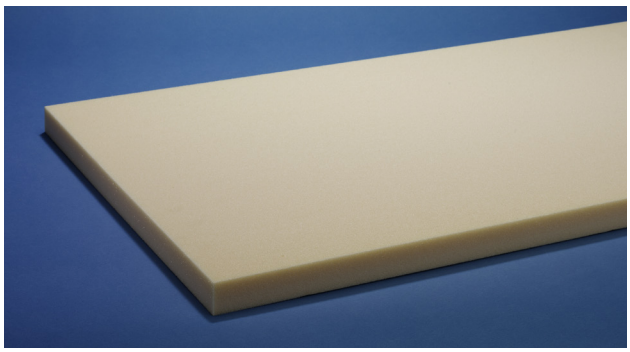

TECHNICAL DATA

Divinycell U

THE HIGH PERFORMANCE SANDWICH CORE

Divinycell U foam is a recyclable, prepreg compatible sandwich core offering excellent Fire, Smoke and Toxicity (FST) properties, good mechanicals, and processing characteristics.

MECHANICAL PROPERTIES DIVINYCELL® U

Property	Test Method	Unit		U60	U80	U110
Compressive Strength	ASTM D 1621	MPa	Nominal	0.7	1.1	1.8
			Minimum	0.55	0.8	1.3
Compressive Modulus	ASTM D 1621	MPa	Nominal	21	35	55
			Minimum	13	21	23
Tensile Strength	ASTM D 1623	MPa	Nominal	2.1	2.8	3.6
			Minimum	1.8	2.3	3.0
Shear Strength	ASTM C 273	MPa	Nominal	0.8	1.0	1.6
			Minimum	0.6	0.8	1.3
Shear Modulus	ASTM C 273	MPa	Nominal	13	16	23
			Minimum	11	13	18
Density[1]	ASTM D 1622	kg/m^3	Nominal	60	80	110

1. Tolerance ±10%

For optimal design of applications used in high operating temperatures in combination with continuous load, please contact Diab Technical Services for detailed design instructions.

PRODUCT CHARACTERISTICS

- Excellent FST properties
- Exceptional OSU heat release performance
- High temperature resistance
- Good chemical resistance
- Hot formable
- Acoustic and thermal insulation
- Fast and easy to process
- No film adhesive required
- No need to edge fill

APPLICATION AREAS

Structures, radomes, and interior components.

Customers
LM
ULA

Specifications
Aero G22084
STM1035

TECHNICAL CHARACTERISTICS DIVINYCELL® U

FIRE, SMOKE & TOXICITY CHARACTERISTICS

Characteristic	Standard	Test Method	U60	U80	U110
Vertical Burn, 60 sec	FAR / CS 25.853 Appendix F	Part I (b)(4)	Pass	Pass	Pass
Heat Release, Peak / Total	FAR / CS 25.853 Appendix F	Part IV	<25 / <20	<25 / <20	<25 / <20
	Airbus ABD 0031	AITM 2.0006			
	Boeing BSS 7322	ASTM E906			
Smoke Density1, Ds4, Ds1.5	FAR / CS 25.853 Appendix F	Part V	<1	2	2
	Airbus ABD 0031	AITM 2.0007			
	Boeing BSS 7238	ASTM E662			
Combustion Toxicity[1]	Airbus ABD 0031	AITM 3.0005	Pass	Pass	Pass
	Boeing BSS 7239	ASTM E662			

1. Flaming mode

ELECTRICAL AND THERMAL CHARACTERISTICS

Characteristic	Standard	Test method	U60	U80	U110
Dissipation Factor	ASTM D 2520	Method A	0.0003	0.0008	0.0003
Dielectric Constant			1.06	1.10	1.13
Thermal Conductivity, W/(m-°K) at 23°C	ASTM C 177	–	0.036	0.038	0.039

TECHNICAL CHARACTERISTICS

Characteristic	Standard	Result
Coefficient of Linear Expansion	ASTM D 696	x10^{-6}/°C
Tg	-	217°C

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

PHYSICAL CHARACTERISTICS

Format		Unit	U60	U80	U110
Plain sheets	Length	mm	2440	2440	2440
	Width	mm	1220	1143	1066

Disclaimer:
This data sheet may be subject to revision and changes due to developments to the products. The data is derived from tests and experience. If not stated as minimum values, the data is average data and should be treated as such. Calculations should be verified by actual tests. The data is furnished without liability for the company and does not constitute a warranty or representation in respect of the material or its use. The company reserves the right to release new data sheets in replacement.

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