



TECHNICAL DATA

Divinycell PY

HIGH PERFORMANCE RECYCLABLE PET SANDWICH CORE

Divinycell PY is our high performance PET sandwich core suitable for a variety of applications and processes including infusion, prepreg and press bonding.

Divinycell PY provides high compression and shear properties, low resin uptake and high dimensional stability at elevated temperature.

MECHANICAL PROPERTIES DIVINYCELL® PY

| Property | Test Procedure ¹ | Unit | | PY105 | PY250 |
|-----------------------------------|-----------------------------|-------------------|---------|-------|-------|
| Compressive Strength ² | ASTM D1621 | MPa | Nominal | 1.5 | 4.4 |
| | | | Minimum | 1.4 | 4.0 |
| Compressive Modulus ² | ASTM D1621-B-73 | MPa | Nominal | 112 | 210 |
| | | | Minimum | 85 | 200 |
| Tensile Strength | ASTM D 1623 | MPa | Nominal | 2.4 | 5.0 |
| | | | Minimum | 1.9 | 3.0 |
| Tensile Modulus | ASTM D 1623 | MPa | Nominal | 110 | 230 |
| | | | Minimum | 90 | 200 |
| Shear Strength ³ | ISO 1922 | MPa | Nominal | 0.95 | 2.5 |
| | | | Minimum | 0.8 | 2.0 |
| Shear Modulus ³ | ISO 1922 | MPa | Nominal | 25 | 70 |
| | | | Minimum | 23 | 68 |
| Shear Strength ⁴ | ISO 1922 | MPa | Nominal | 0.85 | 2.2 |
| | | | Minimum | 0.75 | 1.8 |
| Shear Modulus ⁴ | ISO 1922 | MPa | Nominal | 23 | 60 |
| | | | Minimum | 19 | 56 |
| Shear Strain ² | ISO 1922 | % | Nominal | 30 | 15 |
| | | | Minimum | 15 | 5 |
| Density | ISO 845 | kg/m ³ | Nominal | 105 | 250 |
| | | | Maximum | 115 | 255 |
| | | | Minimum | 100 | 240 |

1. All values measured at +23°C. Testing is done on foam with welding lines.

2. Properties measured perpendicular to the plane

3. Properties measured parallel to the welding lines, 1-3 direction

4. Shear properties measured perpendicular to weldlines, 2-3 direction

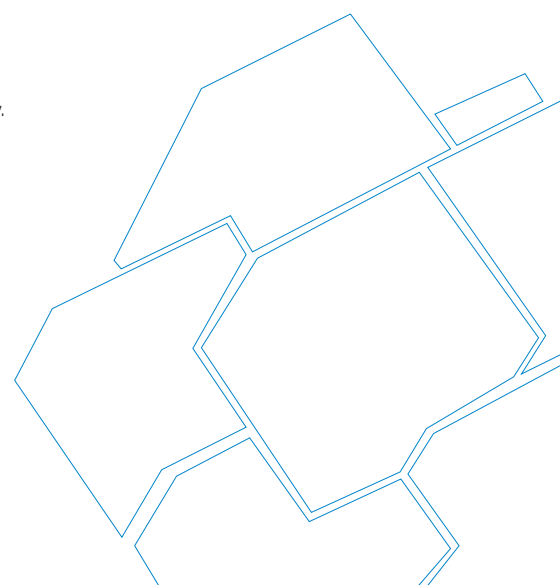
Mechanical data provided above is valid for sealed and unsealed material.

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

Minimum value is a minimum guaranteed mechanical property a material has independently of density.

PRODUCT CHARACTERISTICS

- Made from recycled content
- Recyclable
- Thermoformable
- Good chemical resistance
- Good shear strain
- Low resin uptake
- Closed cell structure
- Allows for high processing temperatures



TECHNICAL CHARACTERISTICS

TECHNICAL CHARACTERISTICS DIVINYCELL® PY

| Characteristics ¹ | Unit | PY105 | PY250 | Test method |
|-----------------------------------|---------|-------|-------|-------------|
| Density variation | % | ± 5 | +2-5 | ASTM C177 |
| Thermal conductivity ² | W/(m-K) | 0.034 | TBD | ASTM C177 |

1. Typical values are approximate
2. Thermal conductivity measured at +10°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 PY is compatible with their particular processing parameters.

OTHER CHARACTERISTICS DIVINYCELL® PY

| Format | | Unit | PY105 | PY250 |
|--------------|--------|------|-------|-------|
| Plain sheets | Length | mm | 2440 | 2440 |
| | Width | mm | 1005 | 1005 |
| GS sheet | Length | mm | 1220 | 1220 |
| | Width | mm | 1005 | 1005 |
| Thickness mm | | | 3-120 | 3-85 |
| Colour | | | Beige | Beige |

Other dimensions are available on request.

STORAGE OF PRODUCT

The shelf life of Divinycell is unlimited when it is stored in its original package on ambient indoor storage conditions and protected against UV exposure.

Divinycell PY is type approved by:



Disclaimer:

This data sheet may be subject to revision and changes due to development and changes of the material. 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.

All content in this publication is protected by international copyright laws. Copyright © Diab November 2023.

Diab Group

Drottninggatan 7, 5th floor
SE-252 21 Helsingborg, Sweden
Tel +46 (0) 430 163 00
E-mail: info@diabgroup.com