Product Data Sheet

# Foradur® 40

nicht verfügbar / EN

## thermoset high-performance insulating material

| | |
|---|---|
| application | for door and composite elements<br><br>unlaminated |
| assembly | blocks, boards or pre-cut parts<br>dimensions at customer's option upon request<br>dimensional tolerances acc. to puren factory standard |

## Foradur® 40 — Technical data PU rigid foam

| Characteristic | Standard/test procedure | Unit | Indicator |
|---|---|---|---|
| Material | Polyurethane rigid foam (PU) acc. to DIN EN 13165, quality-certified, harmless from a biological and building ecology point of view, recyclable, rotproof, resistant to mildew and decay. | | |
| Bulk density | DIN EN 1602 | kg/m³ | 38 - 42 |
| Thermal conductivity | | | |
| Monitored limit value (fresh value) at 10°C mean temperature | DIN EN 12667 | W/(m·K) | 0,021 |
| Nominal value ( EU ) $\lambda_D$ | | at thickness | d < 80 mm / 80 ≤ d < 120 mm / d ≥ 120 mm |
| | DIN EN 13165 | W/(m·K) | 0,027 / 0,026 / 0,025 |
| $\lambda_B$ | DIN 4108-4 | W/(m·K) | 0,028 / 0,027 / 0,026 |

| Thermal insulation resistance for thickness | mm | 20 | 40 | 60 | 80 | 100 | 120 | 140 | 160 | 180 | 200 |
|---|---|---|---|---|---|---|---|---|---|---|---|
| $R_D$ | m²·K/W | 0,70 | 1,45 | 2,20 | 3,05 | 3,80 | 4,80 | 5,60 | 6,40 | 7,20 | 8,00 |

| | | | |
|---|---|---|---|
| Compressive strength | | | measured values [2] |
| Compressive stress at 10% compression | DIN EN 826 | kPa | 250 / 290 - 350 |
| E-modulus (compressive stress) [2] | | MPa | 6,5 - 8,5 |
| Tensile strength perpendicular to panel plane | | | |
| Transverse tensile strength | DIN EN 1607 | kPa | 150 / 230 - 280 |
| E-modulus (transverse tensile stress) [2] | | MPa | 10,5 - 13,5 |
| Bending strength [2] | DIN EN 12089 | kPa | 350 - 450 |
| Transverse strength [2] | DIN EN 12090 (in compliance with DIN 53427) | kPa | 150 - 200 |
| Shear strength [2] | DIN EN 12090 (in compliance with DIN 53294) | kPa | 160 - 220 |
| Designation ( EU ) | DIN EN 13165 | PU-EN 13165-T2-DS(70,90)3-DS(-20,-)2-CS(10\Y)250-TR150 | |
| Fire behaviour | normal flammability, non-smouldering, non-melting, non-dripping | | |
| Reaction to Fire Class / RtF ( EU ) | DIN EN 13501-1 | | E |
| Closed cell content [2] | ISO 4590 | % | 90 - 95 |
| Temperature resistance | | °C | -30 to +120 |
| Moisture absorption [2] | DIN EN 12087 | Vol.-% | ≤ 3 |
| Specific heat capacity [1] C | DIN EN 12524 | J/(kg·K) | 1400 |
| Water vapour diffusion resistance factor [1] μ | DIN EN 12086 | | 40 - 200 |
| Linear expansion coefficient [1] | DIN EN 1604 | 1/K | 5 - 8 · $10^{-5}$ |

1) Literature value, not part of the factory production control and external supervision.
2) Average values calculated on a regular basis under production conditions as part of factory production control. It is ensured that mechanical characteristic values do not fall below their minimum level by more than 10%..

Declaration of performance
20131.CPR.2020.10
puren-PIR NE 40
www.puren.com/download

CE DIN EN 13165:2012+A2:2016
Verification authority: 0751 FIW München

FIW München controlled by 0751 FIW München

puren gmbh · Rengoldshauser Straße 4 · DE-88662 Ueberlingen
t +49 7551 80990 · f +49 7551 809920 · info@puren.com
www.puren.com