

industrial applications

puren®

The construction material with a performance PLUS for the vehicle construction industry.



puren®
gmbh

PURe technology!



Innovative insulation solutions for the vehicle construction industry: High-performance materials made by puren.

industrial applications

Hidden values for sophisticated vehicle construction and sandwich panels: High-performance insulation and construction materials made by puren.



Fantastic atmosphere in the vehicle.

For years now, the vehicle industry is relying on the light-weight yet rigid construction materials made by puren. Whether camper/RV or van/truck, a low vehicle weight, good protection from cold for trucks transporting hot goods and from warmth for refrigerating trucks as well as their economic manufacture are requirements which puren products meet perfectly. In addition to PUR, PIR and prepolymer rigid foams, also our purenit functional materials are used for floor superstructures or ledges in rear doors.

Formats

Slabstock and panels in standard formats or in customer-/project-specific dimensions

Edges

blunt

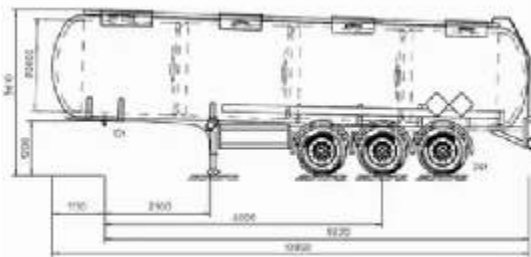
Surface

Generally ground and dedusted, grooved upon request

Other specifications upon request

Advantages

- Light-weight, weight-optimized
- Pressure-resistant
- Lowest thermal conductivity grade starting at 0.021 W/(m·K)
- Slimmer superstructures for higher loading volumes
- Optimum protection of high-grade goods from temperature impact (in temperature-controlled transports ranging from -30° C up to +200° C) through excellent insulating values against heat and cold
- Economical
- Good cell elasticity
- Good adhesive bonding ability
- Can easily be combined with top layers made of GRP (glass-fibre reinforced plastics), metals etc.
- Does NOT drop off while burning
- Easy to repair
- Can be recycled
- Water absorption only approx. 3 % by volume
- Absorbs high dynamic loads as core material of sandwich elements
- High rigidity
- Harmless from a biological and building ecology point of view, non-rotting, recyclable, mould- and mildew-resistant



Whether as core material in vehicle superstructures of trucks or as segment for road tankers being loaded with "hot" merchandise of up to +200° C - puren construction materials provide the ideal solution for any specification or application.





puren high-performance material

PUR/PIR/prepolymer rigid foam: CFC- and HCFC-free, slabstock, not laminated

Characteristics: pressure-resistant, dimensionally stable, does not smolder, melt or drop off while burning, harmless from a biological and building ecology point of view, non-rotting, recyclable, mould- and mildew-resistant

Types	PIR-ADR 33	PIR-ADR 50	PUR 32	PUR 40	Prep 50	PIR- HT 40
Bulk density [kg/m ³], DIN EN 1602:	31 - 33	47 - 52	31 - 33	37 - 42	48 - 52	37 - 42
Thermal conductivity [W/(mK)] DIN EN 12667	generally for all types: 0.021 - 0.024 (except for HT)					0.023 - 0.026
Compressive strength [kPa], DIN EN 826:	170 - 210	370 - 410	200 - 240	250 - 300	380 - 430	240 - 300
Bending strength [kPa], DIN EN 12089:	270 - 320	500 - 600	250 - 300	350 - 450	450 - 600	250 - 300
Traversal tensile strength [kPa], DIN EN 1607:	220 - 260	350 - 450	320 - 380	360 - 420	500 - 600	220 - 260
Traversal/shearing strength [kPa], DIN EN 12090:	120 - 160	230 - 260	150 - 200	160 - 220	260 - 300	120 - 150
Thrust strength [kPa], DIN EN 12090:	130 - 170	240 - 270	170 - 230	230 - 260	310 - 350	150 - 190
Fire classification acc. to DIN 4102:	B2	B2	B3	B3	B3	B2
Closed cell content [Vol.%], ISO 4590:	generally for all types: 90 - 95					
Linear expansion coefficient [1/K], DIN EN 1604 (based on):	generally for all types: $5 - 8 \times 10^{-5}$					
Temperature resistance [° C]:	generally for all types: -30 bis +120 (except for Prep and HT)				-30 - +100	-30 - +200
Formats [mm]:	generally for all types: 2000 x 1000					
Thicknesses [mm]:	10 up to max. thickness of slabstock					
Other formats, fire classifications, temperature resistances or bulk densities upon request. We reserve the right for technical changes and modifications.						



Confectioning:

Upon request, three-dimensional cut-outs and milled recesses according to drawing resp. customer specifications are possible in our CNC robot processing centers.



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PURE technology!