

biosil®

Biosoluble mineral wool for thermoset process

PRODUCT DESCRIPTION

Low biopersistent mineral wool with organic binder, available as rolled goods and blanks for the individual forming of parts in thermoset processes. Application in automotive or industrial field for thermal insulation, e.g. engine encapsulation (hood liner, gear tunnel, forefront) and for acoustic insulation, e.g. power electronics for BEVs. Fasonaire, binder content, grammage and confection are adjustable according to individual requirements and applications. In addition, biosil® can be combined with covering materials (non-wovens, foils, papers).

TECHNICAL SPECIFICATION

Material description	Mineral wool made of biosoluble mineral fiber	Fasonaire [mmWs] (PA-35-BO) ^[1]	63 – 255
Color	natural or black colored	Grammage [kg/m²] (ISO 9073-1)	0,5 – 4,0
Filament structure	amorphous	Binder content^[2] [%]	Max. 10
Transformation temperature [°C] (DIN ISO 7884-8)	654	Loss on ignition (LOI) [%] (PA-38-BO, according to ISO 1887) ^[1]	≤ 12,5
biopersistence of fiber (half-life) ^[3]	≤ 40 days	Acid resistance [%] Test conditions: 16% HCl 23°C 10min Test conditions: 16% HCl 23°C 240h	> 99,0 > 98,0
Shot content [%] (PA-07-BO) ^[1]	≤ 20	Storage stability of binder (from date of production)	Max. 6 weeks
Burning rate [mm/ min] (ISO 3795)	0	Roll width [mm] Roll diameter [mm]	Max. 1300 Max. 900

FIBER COMPOSITION	SiO₂	CaO + MgO	Al₂O₃	K₂O + Na₂O	Fe₂O₃	MnO
In weight percent [wt. %]	60,2 ± 2	28,1 ± 2	1,1 ± 1	5,0 ± 1,5	5,5 ± 1,5	≤ 1,1

THERMAL CONDUCTIVITY ASTM C201	[°C]	50	100	200	300	400	500
Density 110kg/m ³ , Fas. 140	[W/mK]	0,028	0,034	0,049	0,071	0,101	0,140

The maximum application temperature is 654°C. The technical information does not constitute a quality warranty; their use is for guidance only. The suitability for a specific purpose must be examined. Process-related technical derivations may occur, the above-mentioned values and specifications are subject to manufacturing- and process-related fluctuations. The exact range varies for specific values and tolerances are given upon request. The conditions of the valid product specification biosil® apply.

^[1]Internal DBW test method.

^[2]Binder content adjustable specifically to the application in a range of 0% to 10%. Accordingly, the LOI will increase.

^[3]Environmental, Health and Safety: The mineral fiber for biosil® mineral wool meets the requirements of Nota Q of the EU regulation EC/1272/2008 (CLP) and is exonerated from CLP classification. The biopersistence is characterized with a half-life of the fiber ≤40 days after intratracheal instillation. The provided information is subject to change without notice.