

AKROMID®

C28 GF 25 FRT natural (7332)

PA-Blend

C28 GF 25 FRT natural (7332) is a 25 % glass fiber reinforced, flame retardant and easy flowing PA blend. The material is based on a flame retardant system that is free of red phosphorus and halogens. This grade is suitable for railroad applications and certified to EN 45545-2 R6 and EN 45545-2 R1. To achieve an excellent surface quality a mould temperature of at least 120°C is necessary. Tested according to NFPA 130.

Features

- flame retardant
- surface modified
- easy flow
- 3D printing / additive manufacturing
- public transportation

Regulatory

EN45545-2



Properties

Modulus

10.800 MPa

Strength

157 MPa

Impact

64 kJ/m²

Mechanical Properties

Tensile modulus

ISO 527-2

1 mm/min | d.a.m.

10800 MPa

1 mm/min | conditioned

11000 MPa

Tensile stress at break

ISO 527-2

5 mm/min | d.a.m.

157 MPa

5 mm/min | conditioned

152 MPa

Tensile strain at break

ISO 527-2

5 mm/min | d.a.m.

2,3 %

5 mm/min | conditioned

2,5 %

Charpy impact strength

ISO 179-1/1eU

23°C | d.a.m.

64 kJ/m²

Thermal Properties

Melting temperature

ISO 11357-3

DSC, 10K/min

238 °C

Coefficient of linear thermal expansion

ISO 11359-1/2

23°C to 80°C | parallel

0,2 10⁻⁴/K

23°C to 80°C | transverse

0,66 10⁻⁴/K

Flammability

Flammability

UL 94

0,4 mm Wall thickness

V-0 Class

0,8 mm Wall thickness

V-0 Class

1,6 mm Wall thickness

V-0 Class

3,2 mm Wall thickness

V-0 Class

Burning rate 5V

UL 94

1,6 mm Wall thickness

5VA Class

3,2 mm Wall thickness

5VA Class

GWFI

IEC 60695-2-12

0,4 mm Wall thickness

960 °C

0,8 mm Wall thickness

960 °C

1,6 mm Wall thickness

960 °C

3,2 mm Wall thickness

960 °C

GWIT

IEC 60695-2-13

0,4 mm Wall thickness

825 °C

0,8 mm Wall thickness

800 °C

1,6 mm Wall thickness

800 °C

3,2 mm Wall thickness

850 °C

Burning rate (<100 mm/min)

FMVSS 302

> 1 mm Thickness

+

Protection Train

EN 45545-2

R1/6/7 HL2

General Properties

Density

ISO 1183

23°C

1,43 g/cm³

Humidity absorption

ISO 1110

70°C, 62% r.H.

0,9 - 1,1 %

Molding shrinkage

ISO 294-4

flow

< 0,2 %

transverse

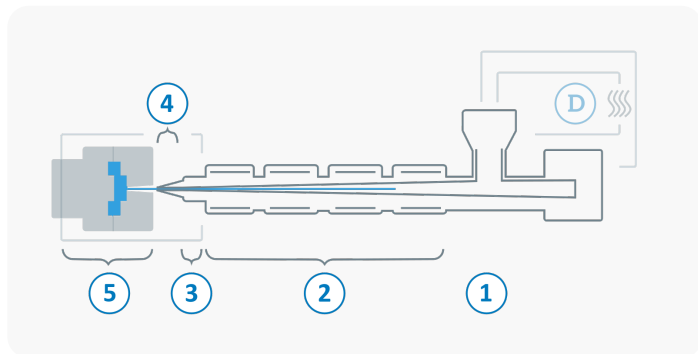
0,1 - 0,3 %

Electrical Properties

Comparative tracking index	Test liquid A	600 V
IEC 60112		

Processing

The values mentioned are recommendations. We only recommend desiccant / dry air dryers or vacuum dryers. Too long a drying time and the resulting residual moisture content below the lower limit can lead to filling problems and surface defects. The specified drying time refers to closed and undamaged bagged material. When processing from previously opened bags or from octabins with polyolefin inliners, a longer drying time may be necessary. It is recommended to check the residual moisture content after the drying process.



D	Drying time	4 - 12 h
	Drying temperature ($\tau \leq -30^{\circ}\text{C}$)	80 - 90 °C
	Processing moisture	0,02 - 0,1 %
1	Feed section	60 - 80 °C
2	Temperature Zone 1 - Zone 4	250 - 300 °C
3	Nozzle temperature	270 - 300 °C
4	Melt temperature	270 - 300 °C
5	Mold temperature	120 - 160 °C
→	Holding pressure, spec.	300 - 1500 bar
←	Back pressure, spec.	50 -150 bar
	Injection speed	high
	Screw speed	8 - 10 m/min

Diagrams

