

#### Datasheet

##### Description:

AKROMID® B3 F0 natural (1812) is an unreinforced polyamide 6 with halogen- and phosphorusfree flame retardant, listed acc. UL 94 at 0,8 mm in all colours, meeting the demand high GWIT of the appliances industry. This material is listed at VDE.

##### Applications

Housings, fasteners and cable connectors in the electro- and electronic industry

Typical values	Test specification	Method	Unit	Value	
				d.a.m.	moist.*

#### Mechanical Properties

Tensile modulus	1 mm/min	ISO 527-2	MPa	4000	1300
Stress at yield	50 mm/min	ISO 527-2	MPa	77	42
Strain at yield	50 mm/min	ISO 527-2	%	3,5	22
Strain at break	50 mm/min	ISO 527-2	%	12	> 100
Charpy impact strength	23°C	ISO 179-1/1eU	kJ/m <sup>2</sup>	100	n.b.
Charpy impact strength	-30°C	ISO 179-1/1eU	kJ/m <sup>2</sup>	100	
Charpy notched impact strength	23°C	ISO 179-1/1eA	kJ/m <sup>2</sup>	4	9

#### Electrical Properties

Volume resistivity		IEC 60093	Ohm x cm	1,0E+13	
Surface resistivity		b.o. IEC 60093	Ohm	1,0E+13	
Comparative tracking index	test solution A	IEC 60112		600	

#### Thermal Properties

Melting temperature	DSC, 10K/min	DIN EN 11357-1	°C	222	
Temp. of deflection under load HDT/A	1,8 MPa	ISO 75	°C	65	
Temp. of deflection under load HDT/B	0,45 MPa	ISO 75	°C	180	

#### Flammability

Wall thickness			mm	0,4	0,8	1,6	2,0	3,2
Flammability		UL 94	class		V0			
GWFI		IEC 60695-2-12	°C		960	960		960
GWIT		IEC 60695-2-13	°C		775	775		775
Oxygen Index		ISO 4589-2	%	38				

#### General Properties

Density	23°C	ISO 1183	g/cm <sup>3</sup>	1,17	
Humidity absorption	70°C, 62% r.h.	ISO 1110	%	2,7	

#### Processing

Molding shrinkage	flow	ISO 294-4	%	1,0 - 1,2	
Molding shrinkage	transverse	ISO 294-4	%	1,1 - 1,3	

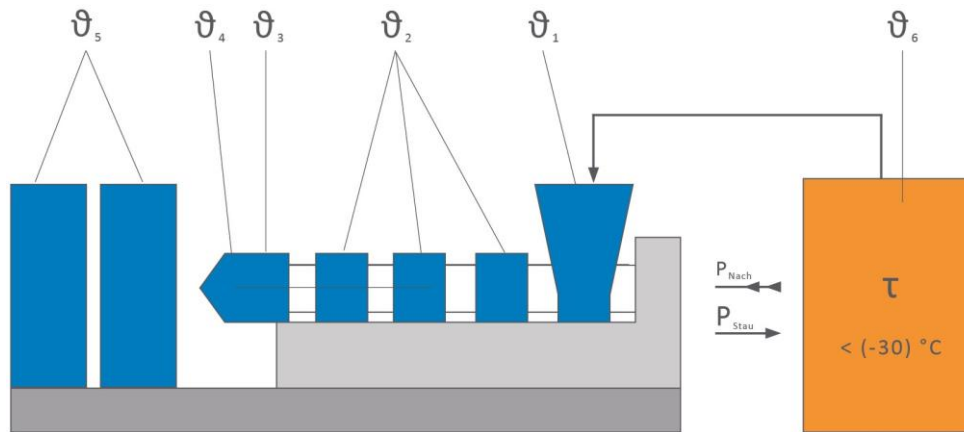
b.o.: based on

n.b. = not broken

\* = specimen acc. ISO 1110 stored

### Continuation

### Processing recommendations



$\vartheta_6$	Drying time	h	0 - 4
$\vartheta_6$	Drying temperature	°C	80
	Processing moisture	%	0,02 - 0,08
$\vartheta_1$	Feed section	°C	60 - 80
$\vartheta_2$	Section 1 - Section 4	°C	220 - 260
$\vartheta_3$	Nozzle	°C	230 - 270
$\vartheta_4$	Melt	°C	240 - 270
$\vartheta_5$	Mould	°C	60 - 80
$P_{Nach}$	Holding pressure, spec.	bar	300 - 800
$P_{Stau}$	Back pressure, spez.	bar	30 - 100
	Injection speed		medium
	Screw speed	m/min	5 - 10

The listed values are recommendations. Higher values should be used for higher glass loadings. We recommend only de-humidifying or vacuum dryers. Extensive drying can cause filling problems and surface defects.