

#### Datasheet

#### Description:

AKROMID® A3 S1 black 9500 (1114) is an unreinforced, cold impact modified polyamide 6.6.

#### Applications

Applications are connecting and fixing systems in the automotive and elctro industry

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

#### Mechanical Properties

Tensile modulus	1 mm/min	ISO 527-2	MPa	3000	2000
Stress at yield	50 mm/min	ISO 527-2	MPa	77	55
Strain at yield	50 mm/min	ISO 527-2	%	5	21
Strain at break	50 mm/min	ISO 527-2	%	> 20	> 50
Flexural modulus	2 mm/min	ISO 178	MPa	3350	
Charpy impact strength	23°C	ISO 179-1/1eU	kJ/m <sup>2</sup>	n.b.	n.b.
Charpy impact strength	-30°C	ISO 179-1/1eU	kJ/m <sup>2</sup>	n.b.	n.b.
Charpy notched impact strength	23°C	ISO 179-1/1eA	kJ/m <sup>2</sup>	8	
Charpy notched impact strength	-30°C	ISO 179-1/1eA	kJ/m <sup>2</sup>	7	
Ball indentation hardness	358/30	ISO 2039-1	MPa	111	

#### Electrical Properties

Volume resistivity		IEC 60093	Ohm x cm	1,0E+15	
Comparative tracking index	test solution A	IEC 60112		600	

#### Thermal Properties

Melting temperature	DSC, 10K/min	DIN EN 11357-1	°C	262	
Temp. of deflection under load HDT/A	1,8 MPa	ISO 75	°C	70	
Temp. of deflection under load HDT/B	0,45 MPa	ISO 75	°C	215	

#### Flammability

Wall thickness			mm	0,4	0,8	1,6	2,0	3,2
Flammability		UL 94	class			HB		
Burning rate (< 100 mm/min)	> 1 mm thickness	FMVSS 302		+				

#### General Properties

Density	23°C	ISO 1183	g/cm <sup>3</sup>	1,12	
Humidity absorption	70°C, 62% r.h.	ISO 1110	%	2,3	

#### Processing

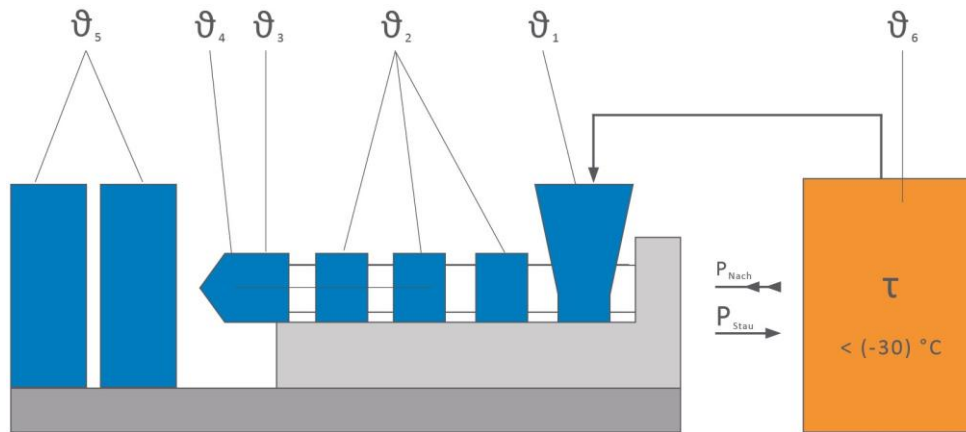
Molding shrinkage	flow	ISO 294-4	%	1,4	
Molding shrinkage	transverse	ISO 294-4	%	2,1	

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 - 0,1
$\vartheta_1$ Feed section	°C	60 - 80
$\vartheta_2$ Section 1 - Section 4	°C	260 - 300
$\vartheta_3$ Nozzle	°C	270 - 310
$\vartheta_4$ Melt	°C	280 - 300
$\vartheta_5$ Mould	°C	40 - 80
$P_{Nach}$ Holding pressure, spec.	bar	300 - 800
$P_{Stau}$ Back pressure, spez.	bar	50 - 150
Injection speed		medium to high
Screw speed	m/min	8 - 15

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.