

## TECHNYL® A 218 S40

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**Description**

Polyamide PA66, reinforced with 40% of glass spheres , heat stabilised, for injection moulding.

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**Applications**

TECHNYL A 218 S40 is used in all sectors of industry, offering an excellent combination between thermal and mechanical properties.

This grade is recommended for mechanical components which require a very good surface finish with low warpage, and good compression strength. ( bearing housings )

This product is available in black .

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**Processing**

The material is supplied in airtight bags, ready for use. In the case that the virgin material has absorbed moisture, it must be dried to a final moisture content of less than 0,2% with a dehumidified air drying equipment at approx 80°C.

Recommended moulding conditions :

Barrel temperatures :	- feed zone	260 - 270°C
	- compression zone	270 - 280°C
	- front zone	280 - 290°C

Mould temperatures : 60 at 80°C

For more detailed information , please refer to the technical sheet "Injection moulding".

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**Safety**

Please refer to the Material Safety Data Sheet A1

# TECHNYL® A 218 S40

## Main properties

Values measured at 23 °C

The values of properties are for black grade.

Properties	Standards	Unit	Values		
			EH 0 – 23 °C	EH 50 – 23 °C	
<b>Physical</b>	Water absorption, 24h in water at 23°C	ISO 62	%	0.7	-
	Density	ISO 1183-A	g/cm3	1.47	-
	Moulding shrinkage longitudinal	RHODIA-EP	%	1.4	-
	Moulding shrinkage transverse	RHODIA-EP	%	1.4	-
	Moulding shrinkage isotropie (para/tran)	RHODIA-EP	-	1	-
<b>Mechanical</b>	Tensile Modulus	ISO 527	MPa	5000	3000
	Yield stress	ISO 527	MPa	90	55
	Elongation at yield	ISO 527	%	4	20
	Tensile strain at break	ISO 527	%	15	35
	Tensile stress at break	ISO 527	MPa	85	50
	Flexural modulus	ISO 178	MPa	4700	2450
	Flexural strength	ISO 178	MPa	150	75
	Charpy notched impact strength	ISO 179/1EA-1993	kJ/m2	4	7.5
	Charpy notched impact strength ISO179/1A	ISO 179-1982	kJ/m2	3	5
	Charpy impact strength	ISO 179/1EU-1993	kJ/m2	25	NB
	Charpy impact strength ISO 179/1D	ISO 179-1982	kJ/m2	25	50
	Izod notched impact strength	ISO 180	kJ/m2	3	7
<b>Thermal</b>	Melt temperature	ISO 3146 - C	°C	263	-
	Temper. of dimensional stability 1,8 MPa	ISO 75-2	°C	100	-
	Coef. linear expansion longit. 23°C-85°C	ASTM E 831	E-5 / °C	6	-
	Flammability UL94 thickness 1,6 mm	ISO 1210/UL 94	-	HB	-
	Glow wire test thickness 1,6 mm	IEC 695-2-1	°C	650	-
	Glow wire test thick. 1,6 mm : no flame	IEC 695-2-1	°C	650	-
<b>Electrical</b>	Relative permittivity 1MHz	IEC 250	-	4	5
	Dissipation factor 1 MHz	IEC 250	-	0.01	0.11
	Volume resistivity	IEC 93	E14.Ohm.cm	10	0.1
	Surface resistivity	IEC 93	E14.Ohm	5	0.005
	Dielectric strength	IEC 243-1	kV/mm	30	26
	Comparative tracking index KC	IEC 112	Volt	450	400
<b>Specific</b>	Limit oxygen index	ISO 4589	%	26	-

## Identification code

>PA66-GB40<

The information contained in this document is supplied in good faith. It is based on the extent of our knowledge of the products as listed, and on the tests and experiments carried out in our laboratories. It is to be used only as an indication and shall not be construed in any way as a formal commitment or warranty on our part. Compliance of our products with your conditions of application or use can only be determined pursuant to your own prior appropriate test. The listed values of properties are for natural grade, if not otherwise specified.



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