

# Zytel® 80G14HS BK208 (PRELIMINARY)

## NYLON RESIN

Zytel® 80G14HS BK208 is a 14% Glass Reinforced, Heat Stabilized, Toughened, Polyamide 66

### Product information

Resin Identification	PA66-IGF14	ISO 1043
Part Marking Code	>PA66-IGF14<	ISO 11469
ISO designation	ISO 16396-PA66-I,GF14,M1CGH,S14-050	
Infrared spectrum	available	

### Rheological properties

	dry/cond.		
Viscosity number	155 / *	cm <sup>3</sup> /g	ISO 307, 1157, 1628
Moulding shrinkage, parallel	0.4 / -	%	ISO 294-4, 2577
Moulding shrinkage, normal	0.8 / -	%	ISO 294-4, 2577

### Typical mechanical properties

	dry/cond.		
Tensile Modulus	5100 / 3300	MPa	ISO 527-1/-2
Stress at break, 5mm/min	100 / 69	MPa	ISO 527-1/-2
Strain at break, 5mm/min	4 / 11	%	ISO 527-1/-2
Charpy impact strength, 23°C	73 / 74	kJ/m <sup>2</sup>	ISO 179/1eU
Charpy notched impact strength, 23°C	19 / 20	kJ/m <sup>2</sup>	ISO 179/1eA
Charpy notched impact strength, -30°C	9 / 8	kJ/m <sup>2</sup>	ISO 179/1eA
Izod notched impact strength, 23°C	15 / 19	kJ/m <sup>2</sup>	ISO 180/1A
Izod notched impact strength, -30°C	8 / 7	kJ/m <sup>2</sup>	ISO 180/1A
Poisson's ratio	0.35 / 0.37		

### Thermal properties

	dry/cond.		
Melting temperature, 10°C/min	263 / *	°C	ISO 11357-1/-3
Glass transition temperature, 10°C/min	75 / 20	°C	ISO 11357-1/-3
Temp. of deflection under load, 1.8 MPa	240 / *	°C	ISO 75-1/-2
Temp. of deflection under load, 0.45 MPa	250 / *	°C	ISO 75-1/-2
RTI, electrical, 0.75mm	120	°C	UL 746B
RTI, electrical, 1.5mm	120	°C	UL 746B
RTI, electrical, 3mm	120	°C	UL 746B
RTI, impact, 0.75mm	65	°C	UL 746B
RTI, impact, 1.5mm	95	°C	UL 746B
RTI, impact, 3mm	105	°C	UL 746B
RTI, strength, 0.75mm	85	°C	UL 746B
RTI, strength, 1.5mm	105 / *	°C	UL 746B
RTI, strength, 3mm	105	°C	UL 746B

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### Flammability

	dry/cond.		
Burning Behav. at 1.5mm nom. thickn.	HB / *	class	UL 94
Thickness tested	1.5 / *	mm	UL 94
UL recognition	yes / *		UL 94
Burning Behav. at thickness h	HB / *	class	UL 94
Thickness tested	0.75 / *	mm	UL 94
UL recognition	yes / *		UL 94
Oxygen index	21 / * <sup>[DS]</sup>	%	ISO 4589-1/-2
FMVSS Class	B		ISO 3795 (FMVSS 302)
Burning rate, Thickness 1 mm	<80	mm/min	ISO 3795 (FMVSS 302)

[DS]: Derived from similar grade

### Other properties

	dry/cond.		
Density	1180 / -	kg/m <sup>3</sup>	ISO 1183

### Emissions

Emission of organic compounds	2.9	µgC/g	VDA 277
Odour	4.5	class	VDA 270

### Injection

Drying Recommended	yes		
Drying Temperature	80	°C	
Drying Time, Dehumidified Dryer	2 - 4	h	
Processing Moisture Content	≤0.2	%	
Melt Temperature Optimum	295	°C	Internal
Min. melt temperature	285	°C	
Max. melt temperature	305	°C	
Max. screw tangential speed	≤0.2	m/s	
Mold Temperature Optimum	80	°C	
Min. mould temperature	50	°C	
Max. mould temperature	100	°C	
Hold pressure range	50 - 100	MPa	
Hold pressure time	3	s/mm	
Ejection temperature	210	°C	Internal

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The above data are preliminary and are subject to change as additional data are developed on subsequent lots.

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