

**PRODUCTION PROPERTIES**

ORACLE® ZS-512A is a master batch of nylon6/66 resin which is designed principally for injection molding application . improved injection processing properties. easy mold release , easy machine feed, High flow, excellent filling qualities for long parts or thin wall parts ,This grade include natural and black version

**TYPICAL APPLICATIONS/ END USES**

This grade is particularly suitable for the moulding of long parts with thin wall sections , such as : electrical wire ties, ,switch components and general industrial parts .

TEST ITEMS	TEST METHOD AND CONDITIONS			TYPICAL VALUES
	TEST METHOD	UNIT	(DRY)23°C	
Density	ISO1183	g/cm <sup>3</sup>		1.14
Melt Volume Rate	ISO1133	cc/10min	(275°C)2.16kg	58
Tensile Strength	ISO527	MPa	10mm/min	68
Tensile strain at break	ISO527	%		70
Flexural Modulus	ISO178	MPa		3900
Flexural Strength	ISO178	MPa	2mm/min	101
Notched Charpy Impact	ISO179	KJ/m <sup>2</sup>	3.5m/s-1J	5.92
Un-notched Impact	ISO179	KJ/m <sup>2</sup>	3.5m/s-5.5J	NB
Ash content		%		None
Flammability Rating	UL-94			HB

**PROCESSING GUIDELINES****MATERIAL HANDLING :**

PA (nylon) materials must be properly dried in order to provide parts with optimum strength and toughness. Nylon materials are hygroscopic and will become degraded by excessive moisture during the injection molding process. Products is supplied in moisture-protected containers and drying prior to molding is not required. If drying becomes necessary, a dehumidifying or desiccant dryer operating at 80 °C (176 °F) is recommended. Drying time is dependent on moisture level, but 4-6 hours is generally sufficient, but final moisture content must be less than 0.2%.

**TYPICAL PROFILE :**

Melt Temperature ;300-310 °C

Mold Temperature : 90-100 °C but temperatures of as low as 45 °C and as high as 105 °C can be used where applicable

Injection Pressure 90-120MPa

**FILL RATE:**

Fast fill rates are recommended to ensure uniform melt delivery to the cavity and prevent premature freezing. Surface appearance is directly affected by injection rate

**NOTE:**

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