

Optimum® DATA SHEET

Property	Conditions	Test Method ASTM/Other	Units	800 Grade Results	800 Metal Flake Results	2000 Grade Results
Physical						
Melt Flow Rate	O - 300° C @ 1.2 KG			40-50	50	100
Density		D 792	g/cm ³	1.19	1.2	1.22
Mold Shrinkage	Flow Direction	D 955	in/in	0.005-0.008	0.005-0.008	0.005-0.008
	Type 1 Bar		mm/mm	.1269-.2030	.1269-.2030	
Mechanical						
Izod Impact Strength	Notched	D 256	ft-lb/in	17+	12	26 NB
Dart Impact				320in/lb +	320in/lb +	320in/lb +
Tensile Strength at Yield	Type 1 Bar	D 638	psi	7,700	7,000	7,000
	Type 1 Bar		MPa	53.05	48.23	53.05
Tensile Elongation at Break	Type 1 Bar	D 638	%	150	120	500
Flexural Modulus		D 790	psi	300,000	300,000	250,000
					2067	
Thermal						
Heat Deflection Temperature	66 psi (0.125/unannealed)	D 648	°F	257	257	150
	0.46 Mpa (3.2mm unannealed)		°C	125	125	65
Flammability						
UL 94 Flame Class	Specimen 1.6mm	UL 94		HB V-0 grades available	HB	HB

The data provided above are typical properties for natural resin only, and are not part of the product specifications. The applications and conditions of use for this product including technical assistance and information are beyond our control. Users of this product are responsible for evaluating this product to ensure to their own satisfaction that it is suitable for their intended use. All information is given without warranty or guarantee. Before working with this product, users must read and familiarize themselves with the available health, safety and environmental information that is available regarding product hazards, proper use and handling.

Optimum® DATA SHEET

Property	Conditions	Test Method ASTM/Other	Units	800 Grade Results
<u>Physical</u>				
Melt Flow Rate	O - 300° C @ 1.2 KG			40-50
Density		D 792	g/cm ³	1.19
Mold Shrinkage	Flow Direction	D 955	in/in	0.005-0.008
	Type 1 Bar		mm/mm	.1269-.2030
<u>Mechanical</u>				
Izod Impact Strength	Notched	D 256	ft-lb/in	17 +
Dart Impact				320in/lb +
Tensile Strength at Yield	Type 1 Bar	D 638	psi	7,700
	Type 1 Bar		MPa	53.05
Tensile Elongation at Break	Type 1 Bar	D 638	%	150
Flexural Modulus		D 790	psi	300,000
<u>Thermal</u>				
Heat Deflection Temperature	66 psi (0.125/unannealed)	D 648	°F	257
	0.46 Mpa (3.2mm unannealed)		°C	125
<u>Flammability</u>				
UL 94 Flame Class	Specimen 1.6mm	UL 94		HB V-0 grades available

The data provided above are typical properties for natural resin only, and are not part of the product specifications. The applications and conditions of use for this product including technical assistance and information are beyond our control. Users of this product are responsible for evaluating this product to ensure to their own satisfaction that it is suitable for their intended use. All information is given without warranty or guarantee. Before working with this product, users must read and familiarize themselves with the available health, safety and environmental information that is available regarding product hazards, proper use and handling.

Optimum® DATA SHEET

Property	Conditions	Test Method ASTM/Other	Units	800 Metal Flake Results
<u>Physical</u>				
Melt Flow Rate	O - 300° C @ 1.2 KG			50
Density		D 792	g/cm ³	1.2
Mold Shrinkage	Flow Direction Type 1 Bar	D 955	in/in mm/mm	0.005-0.008 .1269-.2030
<u>Mechanical</u>				
Izod Impact Strength	Notched	D 256	ft-lb/in	12
Dart Impact				320in/lb +
Tensile Strength at Yield	Type 1 Bar Type 1 Bar	D 638	psi MPa	7,000 48.23
Tensile Elongation at Break	Type 1 Bar	D 638	%	120
Flexural Modulus		D 790	psi Mpa	300,000 2067
<u>Thermal</u>				
Heat Deflection Temperature	66 psi (0.125/unannealed) 0.46 Mpa (3.2mm unannealed)	D 648	°F °C	257 125
<u>Flammability</u>				
UL 94 Flame Class	Specimen 1.6mm	UL 94		HB

The data provided above are typical properties for natural resin only, and are not part of the product specifications. The applications and conditions of use for this product including technical assistance and information are beyond our control. Users of

Optimum® DATA SHEET

Typical Property Values	Conditions	Test Method ASTM/Other	Units	2000 Grade Results
<u>Physical</u>				
Melt Flow Rate	O - 300° C @ 1.2 KG			100
Density		D 792	g/cm ³	1.22
Mold Shrinkage	Flow Direction Specimen 0.125"/3.2mm	D 955	in/in mm/mm	0.005-0.008
<u>Mechanical</u>				
Izod Impact Strength RT and -40	Notched Specimen 0.125"/3.2mm	D 256	ft-lb/in	26 NB
Dart Impact				320in/lb +
Tensile Strength at Yield	Type 1 Bar Specimen 0.125"/3.2mm	D 638	psi	7,000
	Type 1 Bar		MPa	53.05
Tensile Elongation at Break	Type 1 Bar Specimen 0.125"/3.2mm	D 638	%	500
Flexural Modulus	Specimen 0.125"/3.2mm	D 790	psi	250,000
<u>Thermal</u>				
Heat Deflection Temperature	66 psi (0.125/unannealed) 0.46 Mpa (3.2mm unannealed)	D 648	°F °C	150 65
<u>Optical</u>				
Light Transmission Haze	CLEAR VERSION AVAILABLE			
Refractive Index				
<u>Flammability</u>				
UL 94 Flame Class	Specimen 0.062"/1.6mm	UL 94		HB

The data provided above are typical properties for natural resin only, and are not part of the product specifications. The applications and conditions of use for this product including technical assistance and information are beyond our control. Users of this product are responsible for evaluating this product to ensure to their own satisfaction that it is suitable for their intended use. All information is given without warranty or guarantee. Before working with this product, users must read and familiarize themselves with the available health, safety and environmental information that is available regarding product hazards, proper use and handling.