



## Recalon® MC 500 Properties Data Sheet

### ① Raw material description

<b>Standard Grade:</b>	Casting grade	<b>Appearance:</b>	---
<b>Applications:</b>	Processing material, sheet, strip, tube, used in machinery, instrument, automobile components, electronics, railway, household appliances, communication, frame, pipeline and other precision engineering.		
<b>Remarks:</b>	Character: excellent combination properties, high strength, rigidity and hardness, creep resistance, wear resistance, heat-proof aging, good mechanical properties.		

### ② Raw material technical data sheet

Property item	Test conditions	Testing method	Testing data	Unit
<b>I. Physical property</b>				
Density	23°C	ASTM D792	1.15	g/cm <sup>3</sup>
Shrinkage	---	ASTM D955	1.5~1.8	%
Water absorption	Impregnation (23°C)	ASTM D570	>0.9	%
Flammability class	---	UL94	self-extinguish	---
<b>II. Mechanical property</b>				
Impact strength	23°C	ASTM D256	15	kJ/m <sup>2</sup>
Tensile strength	---	ASTM D638	80-85	MPa
Tensile strength at break	---	ASTM D638	---	---
Elongation at break	---	ASTM D638	25	%
Flexural Strength	---	ASTM D790	100-110	MPa
Flexural Modulus of elasticity	---	ASTM D790	3300	MPa
Hardness— Rockwell	---	ASTM D785	110	R (Scale)
Hardness—Shore D	---	ASTM D2240	83-85	D
Impact Strength (notched)	---	ASTM D256	11	kJ/m <sup>2</sup>
Friction Coefficient	---	ASTM D1894	0.19	---
<b>III. Thermal property</b>				
Heat deflection temperature HDT/A	1.82MPa	ASTM D648	93	°C
Max. working temperature (long time)	---	UL746B	100	°C
Melting point	---	ASTM D2133	220	°C
Brittle temperature	---	ASTM D746	-9	°C
Thermal conductivity	23°C	ASTM C177	0.28	W/(m*K)
Coefficient of linear thermal expansion	---	ASTM D696	5~7	×10 <sup>-5</sup> K <sup>-1</sup>
<b>IV. Electrical property</b>				
Dielectric Constant	1 MHz	ASTM D150	3.7	10 <sup>6</sup> Hz
Dielectric loss angle tangent	1 MHz	ASTM D150	0.02	10 <sup>6</sup> Hz

Dielectric strength		ASTM D149	25	kV/mm
Volume resistivity	---	ASTM D257	$10^{15}$	( $\Omega$ ) * cm
Surface resistivity	---	ASTM D257	$10^{15}$	( $\Omega$ )
<p><b>Note:</b> <math>1 \text{ g/cm}^3 = 1,000 \text{ kg/m}^3</math>, <math>1 \text{ Mpa} = 1 \text{ N/mm}^2</math>, <math>1 \text{ kV/mm} = 1 \text{ MV/m}</math></p> <p><b>Statement:</b></p> <p><b>NOTE:</b> The information contained herein are typical values intended for reference and comparison purposes only. They should NOT be used as a basis for design specifications or quality control. Quanda will not provide any legally binding guarantee of certain properties, or any suitability.</p>				