

Recalon®MC-ESD-R6 Technical Property Data Sheet

① raw materials description

Standard grade:	Casting grade	Appearance colors:	Black
Applications:	Processing materials, plate, strip, tubes. Apply in machinery, instrumentation, automotive parts, electrical and electronics, railways, household appliances, telecommunications, textile machinery, tubing and precision engineering products.		
Characteristics:	good overall performance; high strength, stiffness and hardness, creep resistance, wear resistance, heat aging resistance, good machinability		

② raw materials technical data

Property item	Test conditions(status)	Test methods	Test data	unit
I. Physical properties				
Density	23°C	ASTM D792	1.14~1.16	g/cm ³
Shrinkage	---	ASTM D955	1.5~1.8	%
Water absorption	24 hours dipping (23°C)	ASTM D570	>0.9	%
Flammability class	---	UL94	Self-extinguishing	---
II. Mechanical properties				
Tensile modulus	23°C	ASTM D256	4100	MPa
Tensile stress (yield)	---	ASTM D638	75~85	MPa
Tensile strain (elongation)	---	ASTM D638	>25	%
Elongation at break	---	ASTM D638	20	%
Flexural strength	---	ASTM D790	90	MPa
Flexural modulus	---	ASTM D790	3300	MPa
Hardness-Rockwell	---	ASTM D785	110	R (Scale)
Hardness Shore D	---	ASTM D2240	84	D
Izod impact strength (No notch)	---	ASTM D256	5.4	kJ/m ²
Friction coefficient	---	ASTM D1894	0.39	---
Taber abrasion resistance	---	---	0.41	mg
III. Thermal properties				
Heat deflection temperature-HDT/A	1.82MPa	ASTM D648	93	°C
Max. working temperature-long time	---	UL746B	115	°C
Melting point	---	ASTM D2133	220	°C
Thermal conductivity	23°C	ASTM C177	0.28	W/(m*K)
Coefficient of linear thermal expansion	flowing	ASTM D696	5.0E-5 to 8.0E-5	cm/cm/°C
IV. Electrical properties				
Dielectric constant	1 MHz	ASTM D150	3.7	10 ⁶ Hz
Dielectric dissipation factor	1 MHz	ASTM D150	0.02	10 ⁶ Hz
Dielectric strength	---	ASTM D149	10	kV/mm
Volume resistivity	---	ASTM D257	10 ⁶ ~10 ⁹	Ω * cm

Surface resistivity	---	ASTM D257	$10^6 \sim 10^9$	Ω
NOTE: 1 g/cm³ = 1,000 kg/m³, 1 Mpa = 1 N/mm², 1kV/mm = 1 MV/m				
STATEMENT:				
NOTE: 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.				