RC-2003

Silicone-Acrylic Core-Shell Impact Modifier

TECHNICAL DATA SHEET **TDS | RC Polymer Solutions**

Product Description

RC-2003 is a core-shell impact modifier for engineering-plastics applications. It has a silicone-acrylic rubber core with an MMA-based grafted shell.

Key feature: Low-temperature impact performance and colorability. **Applications in source:** PC; PA (secondary); PVC (secondary).

Typical PC Application Performance

Reference test formulation: PC / impact modifier / PETS / antioxidant 1010 = 95 / 5 / 0.2 / 0.2 (parts).

Property	Test method / condition	Unit	RC-2003
Notched Izod impact, 23°C	ASTM D256	J/m	673
Notched Izod impact, -30°C	ASTM D256	J/m	589
Notched Izod impact, -40°C	ASTM D256	J/m	540
Tensile strength	ASTM D638, 50 mm/min	MPa	65.7
Elongation at break	ASTM D638, 50 mm/min	%	122.1
Flexural strength	ASTM D790, 2 mm/min	MPa	89.5
Flexural modulus	ASTM D790, 2 mm/min	Not stated	2401
Melt flow rate, 300°C / 1.2 kg	ASTM D1238	g/10 min	12.57
Gloss, 60°	—	GU	102
Natural color L*	—	—	93.54
Natural color a*	—	—	-0.22
Natural color b*	—	—	2.03
Yellowness index	D1925	—	3.76
1% black masterbatch L*	—	—	28.67
1% black masterbatch a*	—	—	-0.06
1% black masterbatch b*	—	—	-0.93

Processing Reference

Twin-screw extrusion	Zones C1–C9: 260–270°C; die: 270°C
Injection molding	Zones T1–T3: 260–280°C

Results are reference measurements from the stated PC formulation and test conditions.

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