

Injection Molding Thermoset

Plastic Injection Molding Materials

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Technical Data:

Product Description

Phenolic Resin (PF) for flame-retardant applications, Epoxy Resin (EP) with strong adhesion and chemical resistance, Urea-Formaldehyde Resin (UF) for cost-effective precision, Polyurethane Resin (PUR) offering flexibility and durability, Silicone for high-temperature resilience and biocompatibility, Silicone rubber for elasticity and tear strength, and Fluorosilicone for chemical resistance in demanding environments.

Features and Applications

Grade	Features	Applications
Phenolic Resin (PF)	Exceptional heat resistance, flame retardancy	Electrical switches, automotive components, consumer goods
Epoxy Resin (EP)	Strong mechanical properties, adhesive capabilities	Electronics, aerospace, automotive, construction
Urea-Formaldehyde Resin (UF)	Dimensional stability, good electrical properties	Electrical components, appliance handles, automotive parts
Polyurethane Resin (PUR)	Flexibility, abrasion resistance, load-bearing capacity	Molded foams, industrial wheels, rollers, bushings
Silicone	High-temperature resistance, electrical insulation	Coatings, electrical insulators, high-temperature components
Silicone Rubber	Flexibility, tear strength, biocompatibility	Medical devices, automotive parts, consumer products
Fluorosilicone	Enhanced chemical resistance, wide temperature range	Aerospace seals, automotive components, electronics connectors

Physical and Mechanical

Material	Tensile Strength	Tensile Elongation	Flexural Modulus	Flexural Strength	Izod Impact	Heat Deflection Temp	Melt Flow Rate	Shrinkage	Density
	(MPa)	(%)	(GPa)	(MPa)	(J/m)	(°C)	(g/10 min)	(in/in)	(g/cm3)
Phenolic Resin (PF)	65	1	3	100	4	165	N/A	1	1.4
Epoxy Resin (EP)	75	2.5	3	115	18	95	N/A	1	1.2
Urea-Formaldehyde Resin (UF)	65	6	2.5	100	9	95	N/A	0.5	1.5
Polyurethane Resin (PUR)	40	300	2	60	15	60	N/A	1	1.2
Silicone	10	200	1.5	8	N/A	220	N/A	1.5	1.2
Silicone Rubber	15	500	2	10	N/A	180	N/A	1.5	1.2
Fluorosilicone	12	150	2	8	N/A	235	N/A	1.5	1.5

Note

The above data are reference material science data. This data reference is not binding and is not considered as authoritative test data. If your material requirements are extremely precise, please contact our material engineers. Tel | +86 18926788217 | Web | www.newayprecision.com | Contact Neway

