Additive Free Polymer PMMA Spherical Powder - W 9000g

Grade: Additive Free Polymer
Formula: PMMA, Acrylic
Mean Particle Size: 600µm
Weight: 9000g
Molecular Weight: ~120k g/mol
Product Shape: Spherical
Type: Extrusion Grade
CAS Number: 9011-14-7
UOM Code: 751-592-10
Legacy Code: ME306010
Distributor Code: GF75159210
SKU: 1000126508
Product Code: ME30-PD-000110

Material Properties for Polymers

Physical Properties

Element	Value
Abbe number	57.2
Flammability	HB
Radiation resistance	Fair
Refractive index	1.49
Resistance to Ultra-violet	Good
Limiting oxygen index(%)	17-20
Water absorption - over 24 hours(%)	0.2
Density(gcm?³)	1.19

Chemical Resistance

Element	Value
Acids - concentrated	Good-Poor
Acids - dilute	Good-Poor
Alcohols	Good-Poor
Alkalis	Good

Element	Value
Aromatic hydrocarbons	Poor
Greases and Oils	Good
Halogenated Hydrocarbons	Poor
Halogens	Poor
Ketones	Poor

Electrical Properties

Element	Value
Dielectric constant @1MHz	2.6
Dissipation factor @ 1MHz	0.014
Dielectric strength(kV mm?¹)	15
Surface resistivity(Ohm/sq)	10¹?
Volume resistivity(Ohmcm)	2-14 x 10¹?

Mechanical Properties

Element	Value
Hardness - Rockwell	M92-100
Poisson's ratio	0.35-0.4
Elongation at break(%)	2.5-4
Tensile modulus(GPa)	2.4-3.3
Izod impact strength(J m?¹)	16-32
Tensile strength(MPa)	80

Thermal Properties

Element	Value
Heat-deflection temperature - 0.45MPa(C)	105
Heat-deflection temperature - 1.8MPa(C)	95
Lower working temperature(C)	-40
Upper working temperature(C)	50-90
Specific heat(J K?¹ kg?¹)	1400-1500
Thermal conductivity(W m?¹ K?¹)	0.17-0.19@23°C
Coefficient of thermal expansion(x10?? K?¹)	70-77