

Nylon 6 Powder

Formula: PA 6

Mean Particle Size: 55µm

Particle Size D10: 15-35 Micronµm

Particle Size D50: 45-65µmµm

Weight: 10000g

Bulk Density: 0.525g/cm³

Type: Heat Stabilised

Colour: Natural

CAS Number: 25038-54-4

UOM Code: 744-879-01

SKU: 1000026719-group

Product Code: AM30-PD-000155

Material Properties for Polymers

Chemical Resistance

| Element | Value |
|--------------------------|-----------|
| Acids - concentrated | Poor |
| Acids - dilute | Poor |
| Alcohols | Good |
| Alkalis | Good-Fair |
| Aromatic hydrocarbons | Good |
| Greases and Oils | Good |
| Halogenated Hydrocarbons | Good-Poor |
| Halogens | Poor |
| Ketones | Good |

Mechanical Properties

| Element | Value |
|--|---------|
| Coefficient of friction | 0.2-0.3 |
| Hardness - Rockwell | M82 |
| Poisson's ratio | 0.39 |
| Tensile modulus(GPa) | 2.6-3 |
| Izod impact strength(J m ² l) | 30-250 |

| Element | Value |
|--|--------------|
| Abrasive resistance - ASTM D1044(mg/1000 cycles) | 5 |
| Tensile strength(MPa) | 78 |

Electrical Properties

| Element | Value |
|--|--------------------|
| Dielectric constant @ 1MHz | 3.6 |
| Dissipation factor @ 1kHz | 0.2 |
| Dielectric strength(kV mm ⁻¹) | 25 |
| Surface resistivity(Ohm/sq) | 5x10 ¹⁷ |
| Volume resistivity(Ohmcm) | 5x10 ¹² |

Physical Properties

| Element | Value |
|---------------------------------------|--------------|
| Flammability | HB |
| Radiation resistance | Fair |
| Refractive index | 1.53 |
| Resistance to Ultra-violet | Poor |
| Limiting oxygen index(%) | 25 |
| Water absorption - equilibrium(%) | 8 |
| Water absorption - over 24 hours(%) | 2.7 |
| Density(gcm ⁻³) | 1.13 |

Thermal Properties

| Element | Value |
|---|----------------|
| Heat-deflection temperature - 0.45MPa(C) | 200 |
| Heat-deflection temperature - 1.8MPa(C) | 80 |
| Lower working temperature(C) | -40 |
| Upper working temperature(C) | 80-160 |
| Specific heat(J K ⁻¹ kg ⁻¹) | 1700 |
| Thermal conductivity(W m ⁻¹ K ⁻¹) | 0.24-0.28@23°C |
| Coefficient of thermal expansion(x10 ⁻⁵ K ⁻¹) | 95 |