



Comparison Lupital F20 – 03 & ASPOM M20 N

Property	lupital F20-03	ASPOM M20N
Polymer Type	POM Copolymer	POM Copolymer
Density (g/cm ³)	1.41	1.4
Molding Shrinkage (mm)	2.0 (flow)	2.1
Water Absorption (23°C, 24hr/50%RH)	0.22%	0.55%
Tensile Modulus (MPa)	2900	2700
Tensile Strength, Yield (MPa)	64	65
Tensile Strain, Yield (%)	8.5	9.4
Elongation at Break (%)	30	29
Flexural Modulus (MPa)	2600	2500
Flexural Strength (MPa)	90	87
Charpy Notched Impact (23°C) (kJ/m ²)	7	6
Charpy Unnotched Impact (23°C) (kJ/m ²)	250	245
Heat Deflection Temp (1.8 MPa, °C)	100	100
Melting Temperature (°C)	166	167
Coefficient of Linear Thermal Expansion (10 ⁻⁵ /K10 ⁻⁵ /K)	1.1	1.1
Volume Resistivity (Ω-cm)	1.0×10 ¹⁴ 1.0×10 ¹⁴	1.0×10 ¹³ 1.0×10 ¹³
Surface Resistivity (Ω)	1.0×10 ¹⁶ 1.0×10 ¹⁶	1.0×10 ¹³ 1.0×10 ¹³
Relative Permittivity (1 MHz)	3.90	3.8
UL 94 Flammability Rating	HB (0.8 mm)	HB (1.6 mm)

Summary –

- Both are medium-viscosity, injection-molding grades of POM copolymer suitable for technical components.
- Mechanical properties (tensile strength, modulus, impact strength) and thermal behavior (heat deflection temperature, melting point) are virtually identical, as are electrical insulation values.
- Both offer stable processing and dimensional accuracy, appropriate for demanding uses in automotive and technical parts.
- lupital F20-03 shows slightly lower water absorption over 24 hours and marginally higher electrical surface/volume resistivity.