

Product Information

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Vu-Stat® Y-20 static dissipative acrylic multipolymer compound

Product Profile:

Vu-Stat Y-20 compound is a transparent, electro-static dissipative acrylic-based multipolymer mainly for molding medical applications.

Typical properties of Vu-Stat Y-20 compound are:

- inherent and permanent static-dissipative properties, not surface treatment
- excellent bonding and welding capabilities
- good light transmission
- prevents drugs from adhering to application device
- high melt flow rate

Application:

Used for drug delivery devices, inhalation devices, electronic packaging and any application where anti-static protection is required.

Examples:

Inhalers, needle hubs for brachytherapy, radioactive seed implants and electronic components requiring dust resistant surfaces.

Processing:

Vu-Stat Y-20 compound can be processed with 3-zone general purpose screws for engineering thermoplastics.

Packaging:

Available in 1500 lb. gaylord boxes; other packaging available on request.

Regulatory and compliance requirements:

Meets requirements of the United States Pharmacopeia Class VI in 001 tint only; ISO 10993-1 in 001 tint only and FDA for food contact for all use conditions up to and including hot filled or pasteurized above 150 degrees F (e.g. Condition 21 CFR 176.170) for all food types except those containing more than 8% alcohol.

Properties:

	Parameter	Unit	ASTM-Standard	Vu-Stat® Y-20 compound
Mechanical Properties				Typical Value
Tensile Strength		psi [MPa]	D 638	5700 [39.3]
Tensile Modulus		x10 ⁶ psi [GPa]	D 638	0.31 [2.1]
Tensile Elongation @ Yield		%	D 638	3
Tensile Elongation @ Break		%	D 638	18.0
Flexural Strength		psi [MPa]	D 790	8300 [57.2]
Flexural Modulus		x10 ⁶ psi [GPa]	D 790	0.24 [1.7]
Notched Izod	¼" bar @23°C	ft-lb/in [J/m]	D 256	1.3 [68.2]
Notched Izod	¼" bar @0°C	ft-lb/in [J/m]	D 256	0.5 [26.2]
Rockwell Hardness		L Scale	D 785	54
Thermal Properties				
Vicat Softening Point		°F [°C]	D 1525	217 [103]
Deflection Temperature, Annealed	1.8MPa, 0.250"	°F [°C]	D 648	194 [90]
Coeff. of Linear Therm. Expansion	32 – 312°F	in/ in/°F	D 696	0.000053
Coeff. of Linear Therm. Expansion	0 – 100°C	mm/mm/°C	D 696	0.000095
Rheological Properties				
Melt Flow Rate	230°C & 5.0 kg	g/10min	D 1238	9.0
Optical Properties				d = 3.2 mm
Light Transmission		%	D 1003	85
Haze		%	D 1003	7.0
Yellowness Index			Cyro TM	-0.3
Other Properties				
Specific Gravity			D 792	1.13
Water Absorption		% Max	D 570	0.3
Mold Shrinkage		in/in, mm/mm	D 955	0.004 – 0.007
Bulk Density		g/cc	D 1895	0.65
Recommended processing conditions				
Predrying Temperature		°F [°C]		180 [82]
Predrying Time		hour		3 – 4
Melt Temperature		°F [°C]		400 – 475 [204 – 246]
Mold Temperature		°F [°C]		90 – 140 [32 – 60]

All listed technical data are typical values intended for your guidance. They are given without obligation and do not constitute a materials specification.

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