

PENTASTAT® SC M 280/96 VINYL RIGID FILM

Old Description:
SC 666/05C

A clear rigid vinyl film with excellent static dissipative properties that is consistent on both sides. Meets or exceeds Military Specification MIL-B-81705-C, EIA-541, CECC 00015/1, and IEC 1340 for surface resistivity of and static decay time and applicable Bellcore requirements. Specifically formulated for thermoformed clamshells and trays, printed circuit boards and all other ESD packaging applications for sensitive components.

- * Non-contaminating, non-toxic, reusable and recyclable.
- * Available in custom thicknesses from 7.5 - 35 mil (191- 899 μm)
- * Excellent deep-draw thermoforming characteristics.
- * Certification of electrical properties provided with every order.
- * Flame resistant

Typical Physical Properties

Property	Units	Typical Value	Test Method US; EU
Gauge Tolerance	%	± 2.5 typical ± 5.0 guaranteed	Micrometer
Density	g/cm^3	1.32	ASTM D-1505; DIN 53479
Material Yield (Nominal)	in^2/lb (10 mil); m^2/kg (250 μm)	2100 / 3.03	ASTM D-1505; DIN 53479
Tensile Strength (Yield)	lb/in^2 ; N/mm^2	6650 / 46	ASTM D-882
Elongation (Break)	%	180	ASTM D-882; DIN 53455
Cold Break Temp.	$^{\circ}\text{F}$ / ($^{\circ}\text{C}$)	-4 / (-20)	ASTM D-1790
Heat Deflec. Temp.	$^{\circ}\text{F}$ / ($^{\circ}\text{C}$)	162 / (72)	ASTM D-648 (264 psi; 1.8 N/mm^2)
Surface Resistivity 12% RH (50% RH)	Ω/\square	10^{10} (10^9)	EOS/ESD S 11.11 (EIA-541; MIL-B-81705-C; ASTM D-257, CECC 00015/1; IEC 1340)
Surface Resistance 12% RH (50% RH)	Ω	10^9 (10^8)	EOS/ESD S 11.11 (EIA-541; MIL-B-81705-C; ASTM D-257, CECC 00015/1; IEC 1340)
Static Decay $\pm(5\text{kV} \rightarrow 0.05\text{kV})$ 12% RH (50% RH)	Seconds	0.1 (.02)	FTM 101C-4046 (EIA-541; MIL-B-81705-C; CECC 00015/1; IEC 1340)
Polycarbonate Compatibility (See Technical Bulletin 201C)	Visual	No attack at 2000 psi; 14 N/mm^2 1700 psi; 12 N/mm^2	EIA 564; (SP-2222) (73 $^{\circ}\text{F}$, (23 $^{\circ}\text{C}$), 120 $^{\circ}\text{F}$ (49 $^{\circ}\text{C}$) 158 $^{\circ}\text{F}$, (70 $^{\circ}\text{C}$)
Outgassing (257 $^{\circ}\text{F}$ / 180 $^{\circ}\text{C}$ at <1x10 ⁻⁵ torr vacuum/24 hrs) (See Technical Bulletin 101C)	% TML %CVCM % WVR	.62 .10 .07	ASTM-E595-77 (NASA SP-R-0022A)
Contact Corrosivity , aluminum, copper, stainless steel	Visual	No corrosion	FTM 101C-3005 (EIA-564)
12 day Oven Aging (160 $^{\circ}\text{F}$ / 71 $^{\circ}\text{C}$) surface resistivity @ 12% RH static decay $\pm(5\text{kV} - 0.05\text{kV})$ @12% RH	Ω/\square seconds	10^{11} <2	ASTM D-257; EOS/ESD S 11.11, (EIA-541, MIL-B-81705-C, CECC 00015/1, IEC 1340)

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*All Typical Physical Properties listed above pertain to unformed rigid film only. A loss of electrical properties may be experienced if film is washed. This information is believed to be correct, but does not constitute warranty, guarantee or material specification. The suitability for intended use of Klöckner's rigid static dissipative film must be determined by the customer. Sales of all Klöckner film are made only pursuant to Klöckner's Order Confirmation and Sales Terms and conditions.