

[Innovative Products for Future-Ready Applications

Infusion Therapy, Diagnostic Devices, Blood Management, Medical Packaging and Others



Introducing the world's most advanced medical acrylics. Key benefits include:

- Biocompatibility - FDA Biocompatibility (USP Class VI, ISO 10993)
- Safety & Compliance - BPA & DEHP Free / REACH and MDR Compliance
- Transparency - Optical Transparency / UV Transmittance
- Sterilizability - Gamma / e-beam / Eto
- Efficiency - Light Weight / Easy to process Energy Saving / System Cost
- Mechanical Performance - Toughness & Strength
- Functionality - Bondable to PVC Tubing / Ultrasonic and Laser Welding / Design Freedom
- Chemical Resistance - Lipid / Blood / Oncology Drugs / Alcohol / Disinfectant Wipes
- UV Reduction Protection - 260nm-480nm Protection / UV Reduction / Clarity Retention / Content Protection

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CYROLITE®

ADVANCED
MEDICAL ACRYLICS

CYROLITE® CYROLITE® MD XT® POLYMER

**New Grades
Inside!**



CYROLITE® AT-A-GLANCE

RÖHM

	Method	CYROLITE® and CYROLITE® CP PMMA-based copolymers PHYSICAL PROPERTIES						CYROLITE® MD PMMA acrylics and compounds PHYSICAL PROPERTIES			XT® POLYMER PMMA-based copolymers PHYSICAL PROPERTIES		CYREX® Acrylic-polycarbonate alloys PHYSICAL PROPERTIES	
		CYROLITE® G-20	CYROLITE® G-20 CP	CYROLITE® G-20 HIFLO	CYROLITE® GS-90	CYROLITE® CG-97	CYROLITE® Med 2	CYROLITE® MD H12	CYROLITE® MD L40	CYROLITE® MD zk6	XT® POLYMER 250	XT® POLYMER 375	CYREX® 200-8000	CYREX® 200-8005
OPTICAL														
Light Transmission, %	D-1003	89	Orange UV-T @ (260-480nm) <1.0%	89	89	87	85	92	92	92	90	86	Opaque	Opaque
Haze, %	D-1003	5.0		6.0	3.0	5.0	7.0	<1	<1	1	2.5	2.5		
Refractive Index	D-542	1.518		1.518	1.515	1.515	1.515	1.49	1.49		1.518	1.518		
RHEOLOGICAL														
Avg Melt Flow g/10 min @ 230°C & 5.0 kg	D-1238	2.6	2.6	10	6.5	1.8	2.1	7.0 @ 3.8kg	26 @ 3.8kg	1.7 @ 3.8kg	4.2	2.6	3.9 @ 3.8kg	3.5 @ 3.8kg
MECHANICAL														
Tensile Strength, psi	D-638	6,800	6,800	7,000	6,800	5,270	5,320	9,500	8,800	6,300	8,000	7,000	8,850	8,000
(MPa)		(46.9)	(46.9)	(48.3)	(46.9)	(36.3)	(36.7)	(65.5)	(60.7)	(43.4)	(55.2)	(48.3)	(61.0)	(55.2)
Tensile Modulus, x10 ⁶ psi	D-638	0.32	0.32	0.37	0.32	0.27	0.25	0.47	0.47	0.22	0.43	0.37	0.35	0.32
(GPa)		(2.2)	(2.2)	(2.6)	(2.2)	(1.9)	(1.7)	(3.2)	(3.2)	(1.5)	(3.0)	(2.6)	(2.4)	(2.2)
Tensile Elongation @ Yield, %	D-638	4.0	4.0	3.6	3.6	3.8	3.9	4 – 6	2 – 4	5	4	4	4.7	4.3
Flexural Strength, psi	D-790	10,500	10,500	9,400	10,800	9,800	8,590	17,000	8,600	8,600	13,000	11,000	12,500	11,300
(MPa)		(72.4)	(72.4)	(64.8)	(74.5)	(67.6)	(59.2)	(117.2)	(59.3)	(59.3)	(89.6)	(75.8)	(86.2)	(78.9)
Notched Izod, ft-lb/in (J/m) 1/4" (6.35mm) bar @ 23°C	D-256	1.9	1.9	1.9	2	2.7	2.2	0.36	0.36	1.1	1.2	2	30 @ .125"	26 @ .125"
(J/m)		(101.0)	(101.0)	(101.0)	(107.0)	(143.0)	(117.0)	(19.0)	(19.0)	(58.1)	(64.0)	(107.0)	(1600.0)	(1387.0)
Other Properties														
Vicat Softening Point °F	D-1525	214	214	214	210	194	201	221	180	201	214	217	277	286
(°C)		(101)	(101)	(101)	(99)	(90)	(94)	(105)	(82)	(94)	(101)	(103)	(136)	(141)
Specific Gravity	D-792	1.11	1.11	1.11	1.11	1.08	1.08	1.19	1.19	1.16	1.11	1.11	1.15	1.15
Processing Conditions														
Drying Temperature, °F (3–4 hours) to 0.05%		175.00	175.00	175.00	160.00	160.00	160.00	170.00	160.00	180.00	180	180	180	180
Melt Temperature, °F		400 – 475	400 – 475	380 – 460	410 – 450	420 – 480	450 – 480	430 – 480	410 – 470	450 - 480	400 – 475	400 – 475	460 - 510	460 - 510

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