



MARNOT ADVANCED™ LI HARDCOAT CLEAR POLYCARBONATE

Marnot Advanced LI is a new generation of enhanced hardcoats for demanding graphic arts applications.

Features of Marnot Advanced LI Clear Polycarbonate include:

- Low to no iridescence
- Enhanced scratch resistance
- Excellent abrasion resistance
- Outstanding for embossing and die cutting
- Excellent chemical resistance to common household cleaners and industrial solvents
- Second surface printability with solvent and UV inks
- First surface printability with clear, matte and texture UV cure inks

Marnot Advanced LI Clear Polycarbonate is available in web width of 48" and in 7, 10, 15, 20, and 30 mil thickness. Custom roll widths and sheet sizes are available.

TYPICAL VALUES ‡

Physical	Test Method	Value	Unit
Specific Gravity	ASTM D792	1.2	g/cm ³
Area Factor (Yield Factor)		0.0433	Lb/in ³
Clarity	TM 10.76	98	%
Haze	TM 10.76	0.2	%
Light Transmission	TM 10.76	92	%
Gloss Back painted Flat Black 60 Degrees	TM 10.15	92	GU
Gloss Clear over White Matte 60 Degrees	TM 10.15	164	GU
Mechanical	Test Method	Value	Unit
Abrasion Resistance	TM 10.13	5	%
Pencil Hardness	TM 10.121	hb	
Tensile Strength at Yield	ASTM D882	8400	psi
Break		8800	psi
Tear Strength at Initiation	ASTM D1004	640	g/mil
Tear Strength at Propagation	ASTM D1922	30	g/mil
Thermal	Test Method	Value	Unit
Glass Transition		153	C
Shrinkage	30 min at 120C		
MD		0.1	%
TD		0.1	%

‡ These are typical values only and should not be confused with specification values. Specifications, tolerances, and minimum values are available on request from your Tekra representative or from Tekra.

As Manufactured Chemical Resistance

Chemical	
One Hour Continuous Surface Contact at 23C (73F)	
Acetone	Pass
Concentrated HCl	Pass
MEK	Pass
Toluene	Pass
Methylene Chloride	Fail
Isopropyl Alcohol	Pass
Cyclohexanone	Pass
Ethyl Acetate	Pass
Xylene	Pass
Brake Fluid	Pass
Butyl Cellosolve	Pass
Hexane	Pass
24 hour surface contact at 50C (122F)	
Coffee	Pass
Fantastik ¹	Pass
Formula 409 ²	Pass
Windex w/Ammonia D ¹	Pass
Tide ³	Pass
Downy ³	Pass
20% Bleach	Pass
Mustard	Pass
Mr. Clean ³	Pass
Ketchup	Pass
Tea	Pass
Tomato Juice	Pass
Lemon Juice	Pass
Grape Juice	Pass
Vinegar	Pass
Milk	Pass
Top Job ³	Pass
Armor All †	Pass
Ethanol	Pass
Salt Water	Pass
Sunscreen	Pass
Coppertone* SPF 70+	
- Spray	Pass
- Lotion	Pass
Deep Woods OFF ¹	
'- 25% DEET	Pass

Masking and Interleaving

For best performance and yields, we recommend Marnot Advanced LI Clear Polycarbonate to be configured with mask on the first and second surface.

Alternative options include the use of interleave as a replacement for the first surface mask.

Processability

Tekra continually works to enhance the performance characteristics of our products keeping ease and flexibility of processing in mind. Improvements include:

- First surface decoration performance after 8 print and curing cycles
- Excellent chemical resistance without the need for post curing
- Minimize micro cracking for deeper embossing

We continually validate our products with common processing methods including screen printing, laser cutting, die cutting, and embossing. For more information on our testing or to conduct your own tests on samples, please contact your Tekra sales representative.

The application suggestions, specifications and other data described here are based on experience that is believed by Tekra to be reliable. We recommend that before using these products in production, you perform your own tests to determine to whether these products are suitable for your particular purposes and operation conditions.

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