



MARNOT[®] XL HARDCOAT CLEAR POLYCARBONATE

Marnot films are a complete line of functional hardcoats designed for graphic arts applications. Features of our hardcoat include:

- Excellent abrasion and scratch resistance
- Outstanding embossability and diecuttability
- Excellent chemical resistance to common household cleaners and many other substances
- First and second surface printability with solvent and UV inks, including clearing inks

Marnot XL Clear Polycarbonate is available in web widths up to 48" and in 7, 10, 15, 20, 25 and 30 mil thicknesses.

TYPICAL VALUES ‡

Physical		Test Method	Value	Unit
Specific Gravity		ASTM D792	1.2	g/c3
Area Factor (Yield Factor)			0.0433	Lb/in3
Clarity		TM 10.76	98	%
Haze		TM 10.76	0.6	%
Light Transmission		TM 10.76	91	%
Resistance to Humidity		720 hrs @100F, 100% RH	Pass	
Gloss Backpainted Flat Black 60 Degrees		TM 10.76	92	GU
Gloss Clear over White Matte 60 Degrees		TM 10.76	164	GU
Mechanical		Test Method	Value	Unit
Abrasion Resistance		TM 10.85	8	
Pencil Hardness		TM 10.59	HB	
Tensile Strength at		ASTM D882		
Yield			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			135C	
Heat Aging		170 Hours at 82C	No Change	
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 Corporation.

CHEMICAL RESISTANCE

Chemical	One Hour Surface Contact at 23C	4 hours surface contact at 23C
Acetone	Pass	Pass
Concentrated HCl	Pass	Fail
MEK	Pass	Pass
Toluene	Pass	Pass
Methylene Chloride	Pass	Pass
Isopropyl Alcohol	Pass	Pass
Cyclohexanone	Pass	Pass
Ethyl Acetate	Pass	Pass
Xylene	Pass	Pass
Brake Fluid	Pass	Pass
Butyl Cellosolve	Pass	Pass
Hexane	Pass	Pass
	24 hours surface contact at 23C	24 hours surface contact at 50C
Coffee	Pass	Slight Stain
Fantastik ¹	Pass	Pass
Formula 409 ²	Pass	Pass
Windex w/Ammonia D ¹	Pass	Pass
Tide ³	Pass	Pass
Downy ³	Pass	Pass
20% Bleach	Pass	Pass
Mustard	Pass	Stain
Mr. Clean ³	Pass	Pass
Ketchup	Pass	Pass
Tea	Pass	Slight Stain
Tomato Juice	Pass	Pass
Lemon Juice	Pass	Pass
Grape Juice	Pass	Slight Stain
Vinegar	Pass	Pass
Milk	Pass	Pass
Top Job ³	Pass	Pass
Armor All †	Pass	Pass
Ethanol	Pass	Pass
Salt Water	Pass	Pass
Sunscreen	Pass	Pass

MASKING AND INTERLEAVING

Marnot PC can be configured with mask on the second surface, or with mask on the first and second surfaces.

CUSTOMIZABILITY

Marnot is normally stocked in roll form, 48" wide. Lengths are 600 feet long for 30 mil, 900 feet long for 20 mil, 1200 feet long for 15 mil, 1400 feet long for 10 mil and 1900 feet long for 7 mil. It is also available in sheet stock 48" wide by 24" long. Any stock can be custom slit or sheeted for maximum convenience for your applications.

PROCESSABILITY

Tekra has made a good faith effort to validate the suitability of this product with common processing methods including screen printing, laser cutting, die cutting and embossing. However, because of the variability between different types of equipment, methods and processing conditions Tekra recommends that you work with your Tekra representative, your ink representative and your machine manufacturer to determine the substrates, inks, machinery and settings that work best in your particular situation.

The application suggestions, specifications and other data described here are based on experience that is believed by Tekra Corporation to be reliable. Because of the characteristics of these products, you should, before using these products in production, perform your own tests to determine to your satisfaction whether these products are acceptable and suitable for your particular purposes under your operation conditions.

Any order for these products will be subject to Tekra's terms and conditions of sale.

¹ Registered Trademark of SC Johnson
² Registered Trademark of The Clorox Company
³ Registered Trademark of Proctor and Gamble
† Registered Trademark of ArmorAll Products Corp.



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