



# 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	ASTM D1746	98	%
Haze	ASTM D1003	0.8	%
Light Transmission	ASTM D1003	91	%
Water Absorption, Equilibrium	ASTM D570	0.4	%
Resistance to Humidity	720 hrs @100F, 100% RH	Pass	
Gloss Backpainted Flat Black	ASTM D523		
60 Degrees		92	GU
85 Degrees		-	
20 Degrees		84	
Gloss Clear over White Matte	ASTM D523		
60 Degrees		164	GU
85 Degrees		-	
20 Degrees		181	
Mechanical	Test Method	Value	Unit
Abrasion Resistance	ASTM D1044	6	
Pencil Hardness	ASTM D3363	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**

<b>Chemical</b>	<b>One Hour Surface Contact at 23C</b>	<b>4 hours surface contact at 23C</b>
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
	<b>24 hours surface contact at 23C</b>	<b>24 hours surface contact at 50C</b>
Coffee	Pass	Slight Stain
Fantastik <sup>1</sup>	Pass	Pass
Formula 409 <sup>2</sup>	Pass	Pass
Windex w/Ammonia D <sup>1</sup>	Pass	Pass
Tide <sup>3</sup>	Pass	Pass
Downy <sup>3</sup>	Pass	Pass
20% Bleach	Pass	Pass
Mustard	Pass	Stain
Mr. Clean <sup>3</sup>	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 <sup>3</sup>	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 available in roll form, 48" wide. Lengths are 750 feet long for 30 mil, 1100 feet long for 20 mil, 1500 feet long for 15 mil, 2000 feet long for 10 mil and 2100 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.

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.



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