



FLAME RETARDANT  
 CLEAR POLYCARBONATE  
 PROTEK® HARDCOAT



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

- Excellent abrasion and scratch resistance
- Outstanding chemical resistance to common industrial and household materials
- Coated on UL94V-0 Flame Retardant Gloss Polycarbonate

ProTek Flame Retardant Hardcoat on Polycarbonate will be stocked in a web width of 48" in 10 and 15 mil thickness. 20 and 30 mil thicknesses are possible on a custom order basis.

**TYPICAL VALUES ‡**

Physical		Test Method	Value	Unit
Specific Gravity		ASTM D792	1.344	g/c3
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			10000	psi
Break			8700	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			153C	
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 finalized during the developmental process and are thus unavailable.



CHEMICAL RESISTANCE

Chemical	One hour surface contact at 23C	24 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	Pass
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	Slight Stain
Mr. Clean <sup>3</sup>	Pass	Pass
Ketchup	Pass	Pass
Tea	Pass	Pass
Tomato Juice	Pass	Pass
Lemon Juice	Pass	Pass
Grape Juice	Pass	Pass
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

<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.

MASKING AND INTERLEAVING

Flame Retardant PC can be configured with mask on the uncoated surface or mask on the uncoated and coated surface. Stock rolls will have mask on the uncoated surface.

CUSTOMIZABILITY

Flame Retardant is available in roll form, 48" wide by 1400 feet long on 10 mil PC, and 48" wide by 1000 feet long on 15 mil PC.

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.



TEKRA CORPORATION  
16700 W LINCOLN AVE  
NEW BERLIN, WI 53151  
800-448-3572