



# ProTek® Velvet Texture Heat Stabilized Hardcoated Polyester

ProTek® films from Tekra incorporate the latest advances in coating technologies to offer the most advanced hardcoats in the industry.

Features of ProTek® Velvet Texture Heat Stabilized Hardcoated Polyester include:

- Velvet surface texture
- Uses thermally stabilized base film (HS)
- 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

## Typical Values\*\*

Physical	Test Method	Value	Unit
Specific Gravity	ASTM D792	1.39	g/cm <sup>3</sup>
Area Factor (Yield Factor)		0.05	lb/in <sup>3</sup>
Clarity	TM 10.76	17	%
Haze	TM 10.76	58	%
Light Transmission	TM 10.76	90	%
Gloss Back painted Flat Black 60 Degrees	TM 10.15	7	GU
Gloss Clear Over White Matte 60 Degrees	TM 10.15	19	GU
Ra (Surface Roughness)	TM 10.68	2.6	microns
Mechanical	Test Method	Value	Unit
Abrasion Resistance	TM 10.13	Δ8	
Pencil Hardness	TM 10.97	H-2H	
Tensile Strength at	ASTM D882A		
Yield, MD		13,000	psi
Yield, TD		13,000	psi
Break, MD		24,000	psi
Break, TD		27,000	psi
Tear Strength at Initiation	ASTM D1004	1,000	g/mil
Tear Strength at Propagation	ASTM D1922	16	g/mil
Thermal	Test Method	Value	Unit
Glass Transition		70	C
Shrinkage	30 min at 150°C		
MD		0.20	%
TD		0.10	%

\*\*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

**Post UV Curing Chemical Resistance**

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

**Masking and Interleaving**

ProTek® Velvet Texture Heat Stabilized Hardcoated Polyester can be configured with mask on the second surface, or with interleaving, or with no mask or no interleaving. If no protective mask or interleaving is selected, Tekra will not warranty against spot abrasions or other damage to the uncoated surface in transit.

**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 to be reliable. We recommend that before using these products in production, you perform your own tests to determine whether these products are suitable for your particular purposes and 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

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