



# PROTEK® HARDCOAT FINE TEXTURE HS MAXPASS POLYESTER

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

Features of ProTek Fine Texture HS MaxPass Polyester include:

- Uses thermally stabilized base film
- Maximum level of UV printable performance – delivering at least 20 passes with adhesion scores of three or better
- Excellent abrasion and scratch resistance
- Outstanding for embossing and die cutting
- Excellent chemical resistance to common household cleaners and industrial solvents
- First and second surface printability with solvent and UV inks, including clearing inks

ProTek Fine Texture HS MaxPass Polyester is available in web width of 49" and in 7 mil thickness. Custom roll widths and sheet sizes are available.

## TYPICAL VALUES †

| Physical                                    | Test Method    | Value  | Unit   |
|---|----------------|--------|--------|
| Specific Gravity                            | ASTM D792      | 1.3954 | g/cm3  |
| Area Factor (Yield Factor)                  |                | 0.05   | Lb/in3 |
| Clarity                                     | TM 10.76       | 19     | %      |
| Haze  | TM 10.76       | 75     | %      |
| Light Transmission                          | TM 10.76       | 91     | %      |
|   |                |        |        |
| Gloss Back painted Flat Black<br>60 Degrees | TM 10.15       | 10     | GU     |
| Gloss Clear Over White Matte<br>60 degrees  | TM 10.15       | 17     | GU     |
| Mechanical                                  | Test Method    | Value  | Unit   |
| Abrasion Resistance                         | TM 10.13       | Δ 8    |        |
| Pencil Hardness (theoretical)               | TM 10.97       | H-2H   |        |
| Tensile Strength at                         | ASTM D882      |        |        |
| Yield, MD                                   |                | 13000  | psi    |
| Yield, TD                                   |                | 13000  | psi    |
| Break, MD                                   |                | 24000  | psi    |
| Break, TD                                   |                | 27000  | psi    |
| Tear Strength at Initiation                 | ASTM D1004     | 1000   | g/mil  |
| Tear Strength at Propagation                | ASTM D1922     | 16     | g/mil  |
|   |                |        |        |
| Thermal                                     | Test Method    | Value  | Unit   |
| Glass Transition                            |                | 70     | C      |
| Shrinkage                                   | 30 min at 150C |        |        |
| MD  |                | 0.2    | %      |
| 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

**POST UV CURING CHEMICAL RESISTANCE**

| <b>Chemical</b>                  | <b>One Hour Surface Contact at 23C</b> | <b>24 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                           | Slight Stain                           | Slight Stain                           |
| Fantastik <sup>1</sup>           | Pass                                   | Pass                                   |
| Formula 409 <sup>2</sup>         | Pass                                   | Fail                                   |
| Windex w/ Ammonia D <sup>1</sup> | Pass                                   | Pass                                   |
| Tide <sup>3</sup>                | Pass                                   | Pass                                   |
| Downy <sup>3</sup>               | Pass                                   | Pass                                   |
| 20% Bleach                       | Pass                                   | Fail                                   |
| Mustard                          | Stain                                  | Stain                                  |
| Mr. Clean <sup>3</sup>           | Pass                                   | Pass                                   |
| Ketchup                          | Pass                                   | Slight Stain                           |
| Tea                              | Slight Stain                           | Slight Stain                           |
| Tomato Juice                     | Pass                                   | Pass                                   |
| Lemon Juice                      | Pass                                   | Slight Stain                           |
| Grape Juice                      | Pass                                   | Pass                                   |
| Vinegar                          | Pass                                   | Pass                                   |
| Milk                             | Pass                                   | Pass                                   |
| Armor All <sup>†</sup>           | Pass                                   | Pass                                   |
| Ethanol                          | Pass                                   | Pass                                   |
| Salt Water                       | Pass                                   | Pass                                   |
| Sunscreen                        | Pass                                   | Pass                                   |

**MASKING AND INTERLEAVING**

ProTek Fine Texture HS MaxPass Polyester can be configured with interleaving, mask on the second surface, or with no masking or interleaving. If no protective interleaving or masking 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 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  
<sup>†</sup> Registered Trademark of ArmorAll Products Corp.



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