

RowTec[®] XP

Extreme Performance Film

IN FILM
FIRST

Material Description

RowTec XP is a laminated film product that combines the superior quality of RowTec polycarbonate film with the extreme performance of Kynar[®] PVDF film.

This combination produces a film that has excellent light transmission, chemical resistance and UV stability. Further, the film provides the printability, die cuttability and surface texture and gloss control that RowTec polycarbonate film provides. Another benefit that RowTec XP provides is the protection from UV to printed graphics on the second surface. This comes from the extreme UV blocking performance of the Kynar film.



Other selected features and benefits of RowTec XP: Outstanding gloss retention, sheds dirt, resists bacterial growth, resists abrasion, easily cleaned and thermoformable.

Applications

RowTec XP film is ideally suited for outdoor graphics, membrane switch panel overlays, menu boards, cold embossed parts, gas pump graphics and graphics used in harsh chemical environments.

Material Form and Supply

RowTec XP films are available in standard roll widths of 48 1/2". Roll lengths depend on desired thickness. Thicknesses include 0.010", 0.015" and 0.020". Cut sheets are available in standard 24 1/2" x 48 1/2" sheets or in custom sheet sizes.

Available Surface

RowTec XP is available in a velvet/matte surface texture.



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Properties of RowTec XP Film

Physical	Test Method	Units	Typ. Value
Tensile Strength Yield	ASTM D 882	psi	8,200
Tensile Strength Break	ASTM D 882	psi	11,400
Elongation	ASTM D 882	%	230
Tensile Modulus	ASTM D 882	psi	237,000
Optical Properties			
Yellowness Index	ASTM D 1925	-	5.21
Transmission	ASTM D 1003	%	92.9



Chemical Resistance

Excellent resistance to chemicals including:

- Toluene
- Xylene
- Acetone
- Methyl Ethyl Ketone
- Trichloroethylene
- Fuel C (isooctane.toluene 50/50)
- CM 15 (C/Methanol 85/15)
- CE85 (Fuel C/Ethanol 15/85)

These tests were conducted on RowTec XP film to determine chemical resistance. The chemicals above were applied to the Kynar side of the film.

Test Procedure: Three drops of the chemical were deposited on the substrate and covered with a glass watch glass (5 cm in diameter). The drops were left in contact with the substrate. After 24 hours, the lid was removed, and the stain cleaned with soapy water and rinsed with distilled water. Twenty four hours after this cleaning procedure, the substrate was observed. No visible difference was noted for any of the chemicals listed above.



Other "First" Surface Chemical Resistance Information

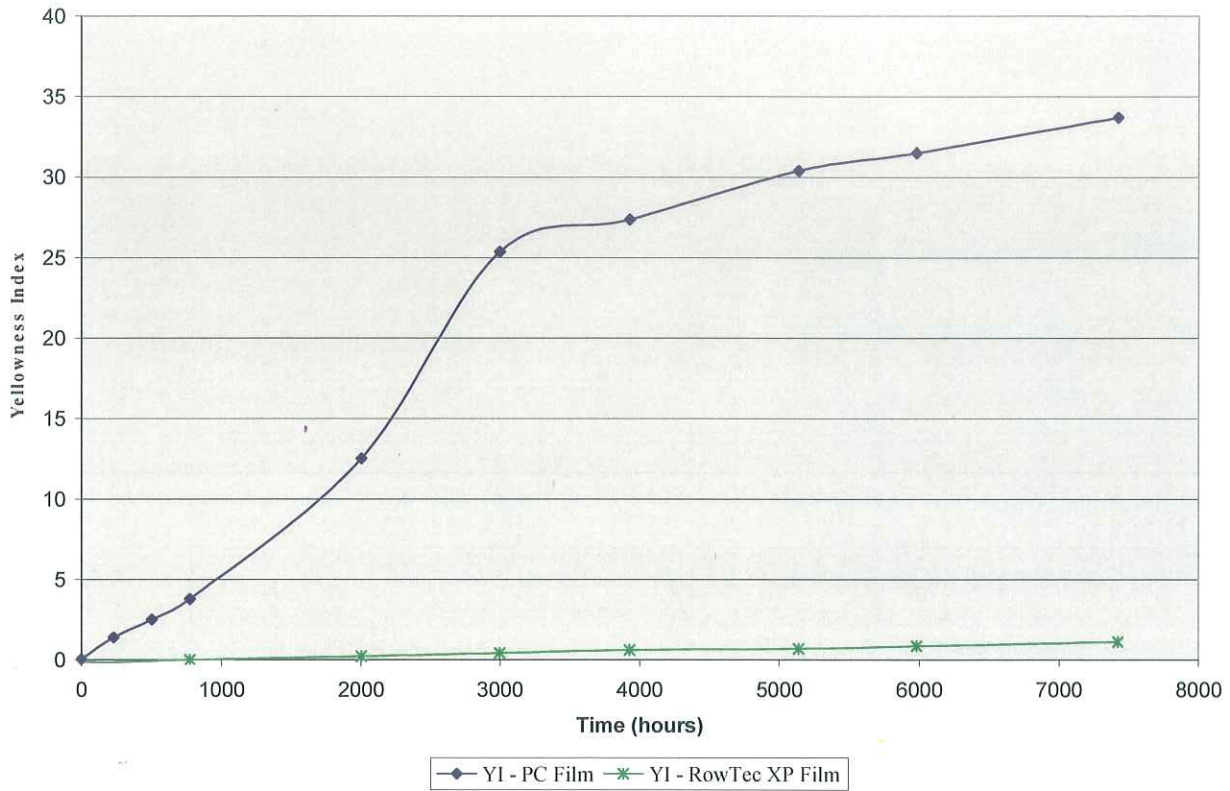
This information is based on published Kynar technical data*.

The following chemicals showed no deleterious effect to the Kynar at room temperature:

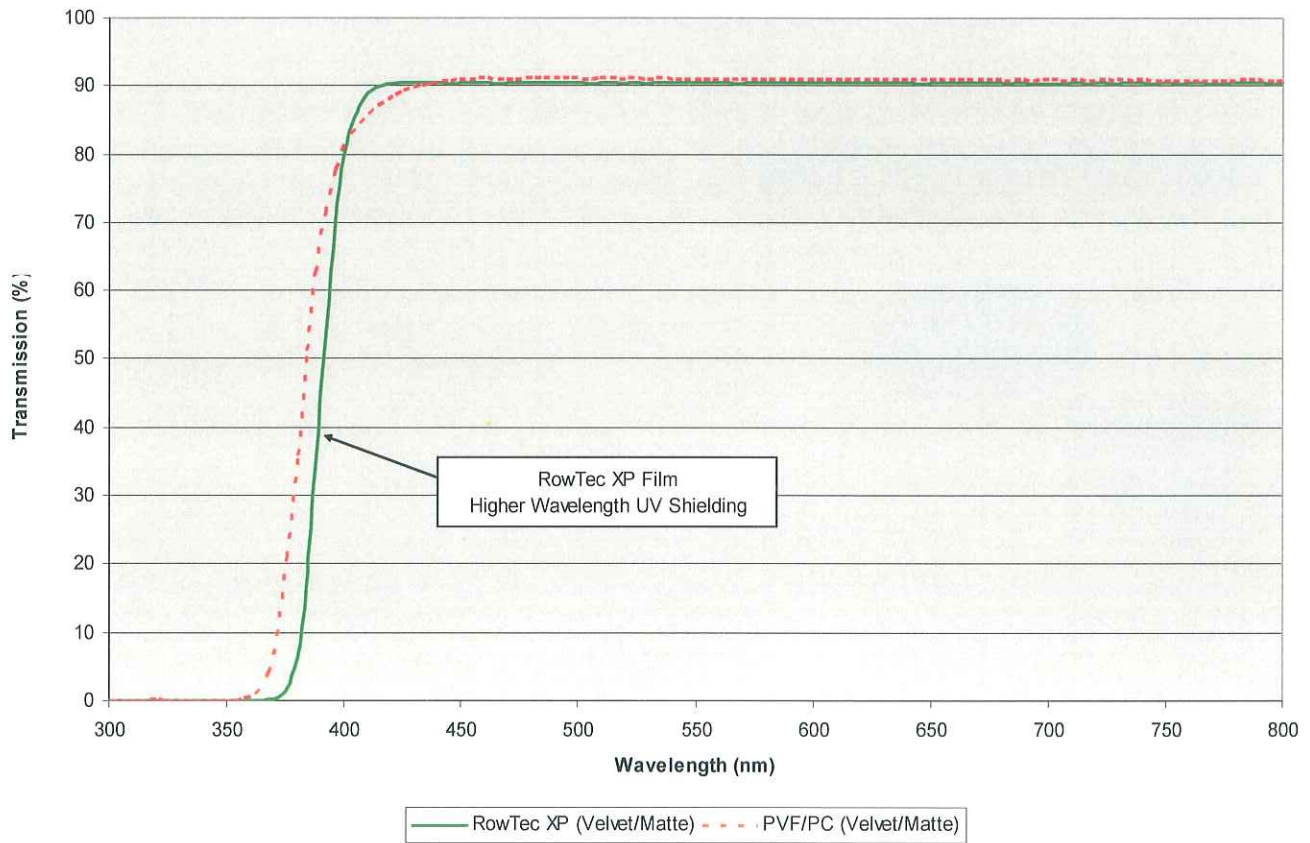
- Acetic Acid (10%)
- Ammonium Hydroxide (up to concentrated)
- Benzene
- Benzyl Alcohol
- Ethyl Alcohol
- n-Heptane
- Hydrochloric Acid (up to concentrated)
- Kerosene
- Nitric Acid (up to 70% in water)
- Perchloric Acid (70%)
- Phenol (5%)
- Phosphoric Acid (85% in water)
- Sodium Chloride (10%)
- Sodium Hydroxide (10%)
- Toluene
- Trichloroethylene

*Data used with permission of Arkema Inc.

Yellowness Index after XENON ARC Weathering



% Transmission vs. Wavelength of RowTec XP Film and PVF/PC Film



At Rowland Technologies, Inc. we manufacture the world's best plastic film and sheet. Our customers rely on us for prompt innovative solutions and continuous improvement in quality while maintaining an overall commitment to excellence.

To find out how you can take advantage of high-quality plastic film and sheet solutions from Rowland Technologies, please visit us on the web at www.rowtec.com or call 203 269 9500.

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Our products include:

RowTec® Polycarbonate Film
SolaTuf® Impact Modified Acrylic Film
Rowlux® Illusion Film
ROWLAR™ Fluoropolymer Film
Polyetherimide (Ultem®) Film and Sheet
Polysulfone Film and Sheet
Polyphenylsulfone (Radel®) Film and Sheet
Engravable Sign Film and Sheet Components
Electro-Conductive and Static Dissipative Film
Specialty Film and Sheet
Toll Extrusion
Research & Development Extrusion

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