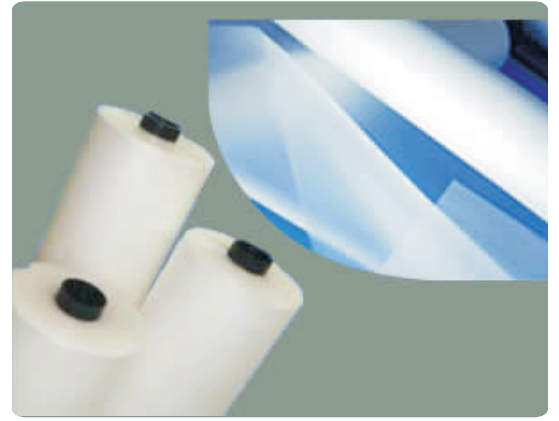




EVA Films



Exclusive Distributor In Canada

Introduction

F-RST® EVA, a leading China based EVA Film Manufacturer, was introduced into the Solar PV industry in 2003. With its focus on continuous R&D on the innovative technology and quality control process, F-RST® EVA has now become one of the largest PV material suppliers in Chinese solar market with two production manufactures located in Zhejiang and Jiangsu Provinces, China.

Since 2009 F-RST® EVA has been a key supplier of EVA film products to over 500 major solar PV panel manufacturers with those products exporting to overseas including Europe and North America, which taking up to 70% of the world's PV module production.

Main Features

- Superior Aging Resistance
- High Light Transmittance and Transparency
- Excellent Bond Strength to Glass and Backsheet
- Outstanding Encapsulation Properties
- Proven Quality consistence and stability
- Cost Effectiveness

Certification



ISO9001

ISO14001

OHSAS18001

RoHS



Technical Data

Performance Properties of F-RST® EVA

Properties	Test Method	Unit	Fast Cure	
			F406	F806
Density	ISO 1183	g/cm ³	0.96	0.96
Tensile Strength	ISO 527-3	MPa	16	16
Elongation at Break		%	550	550
Young's Modulus (cured)		MPa	4.7	4.7
Hardness	GB/T531-1999	Shore	72-75	A 72-75
Optical Transmission (390-1105 nm)	ASTM D1003	%	>92.0	>92.0
Refractive Index	ISO 489	-	1.481	1.481
UV-Cutoff Wavelength**	UV-Vis	nm	310	360
UV Light Resistance 280nm-385nm,15KWh/m ²	Q/HZF 001-2006	% Transmission Retention	>88	>90
Heat/Humidity Resistance 85°C/85RH, 2000h		Gel %	75-85	80-90
Cross-linking Rate		N/cm	>60	>60
Strength Peeling (Glass)		N/cm	>40	>40
Strength Peeling (TPT)	GB/T1410-2006	MD / TD %	<4.0 / <2.0	<4.0 / <2.0
Shrinkage Rate (120°C, 3min)		MIQ	1.45 × 10 ⁶	1.45 × 10 ⁶
Volume Insulating Resistance	GB/T6672-2001	mm	0.3-0.8	0.3-0.8
Range of Thickness	-	mm	250-2,000	250-2,000
Range of Width	-	-	Embossed	
Surface Finish	-	-	Embossed	

Examples of Lamination Conditions

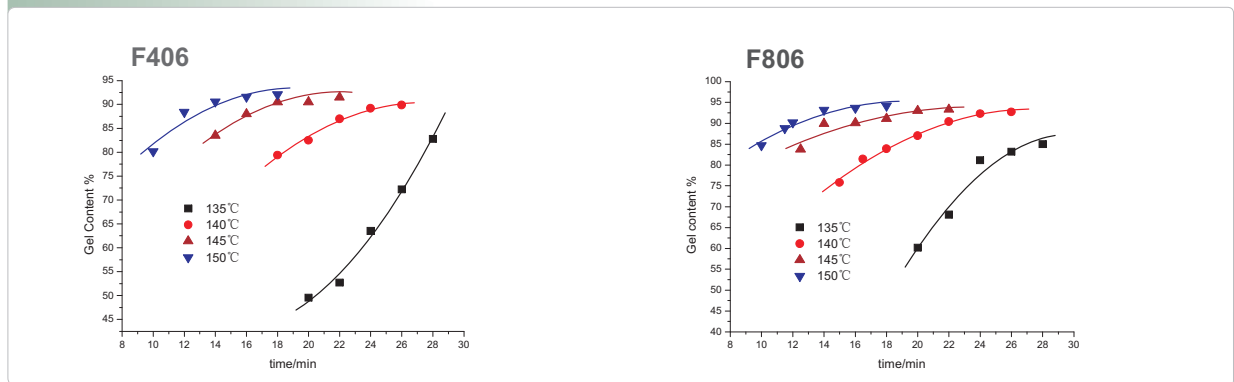
Fast Cure Type - OneStepMethod

Lamination Condition	F406	F806
Hot Plate Temp (°C)	142 (140-148)	145 (140-150)
Vacuum Time (min)	5-7	3-5
Press Time (min)	12-15	8-12

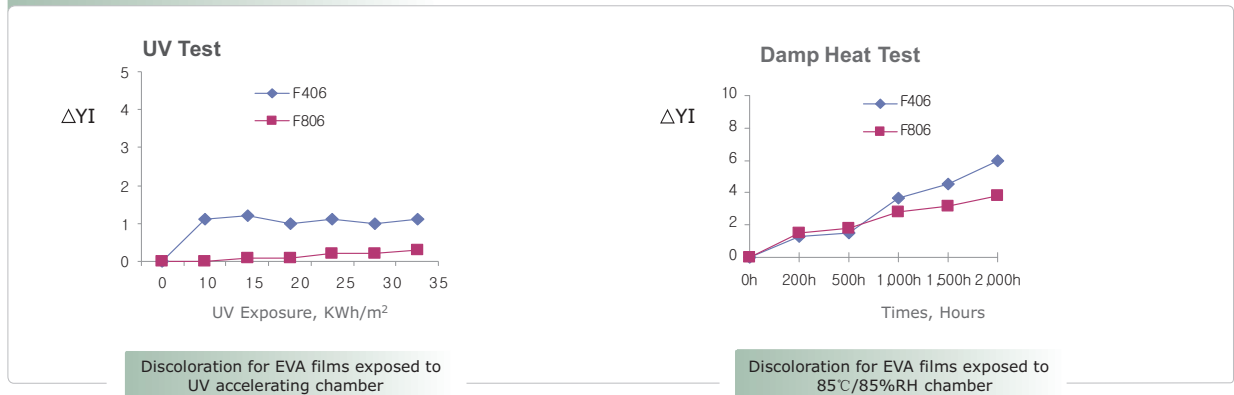
Fast Cure Type - TwoStepMethod

Lamination Condition	F406	F806
Hot Plate Temp (°C)	120	120
Vacuum Time (min)	5-7	3-5
Press Time (min)	5	5
Oven Cure Temp. (°C)	140	140-150
Oven Cure Time (min)	15-20	15-20

Gel Content



Accelerated Aging and Damp Tests



Discoloration for EVA films exposed to UV accelerating chamber

Discoloration for EVA films exposed to 85°C/85%RH chamber