

STYRO**SUN**®

Weather Resistant High Impact PS

For The Tough Outdoors

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 **NOVA** Chemicals®



General Characteristics:

- **High Toughness Material.**
- **UV Resistant.**
- **Easy Processing, Injection Molding and (co-)Extrusion, like HIPS.**
- **Recyclable.**
- **Coloring.**

STYROSUN®

Properties	S.I. Units	STYROSUN 3600	STYROSUN 4400	STYROSUN 4600	STYROSUN 5400	STYROSUN 6600	ISO Standard
MVR (200,5)	ccm/10min	5.5	2.5	3.2	2.5	1.7	1133 H
MFR (200,5)	g/10min	6	2.6	3.3	2.6	1.7	1133 H
Vicat (B/50)	C	83	86	74	89	84	306 B50
HDT (A 1.8MPa)	C	74		70	76	75	75 -1& -2Af
Charpy Unnotched @ 23C	kJ/m	No Break	112	No Break	120	No Break	179/1eU
Charpy Notched @ 23C	kJ/m	18	14	25	14	23	179/1eA
Flexural Modulus	MPa	2050	2300	1800	2200	2000	178
Flexural Strength	MPa	38	43	33	45	39	178
Tensile Modulus	MPa	1950	2100	1800	2100	1900	527 -1& -2/1A/1
Tensile stress at yield	MPa	28	31	24	35	29	527 -1& -2/1A/50
Tensile strain at yield	%	1.8	1.9	1.8	2.3	2.1	527 -1& -2/1A/50
Tensile stress at break	MPa	40	40	40	35	50	527 -1& -2/1A/50
Tensile strain at break	%	21	24	19	27	23	527 -1& -2/1A/50
Density at 23 C	kg/m	1.02	1.03	1.02	1.02	1.01	1183
Moulding shrinkage	%	0.3	0.3	0.3	0.4	0.3	294-4

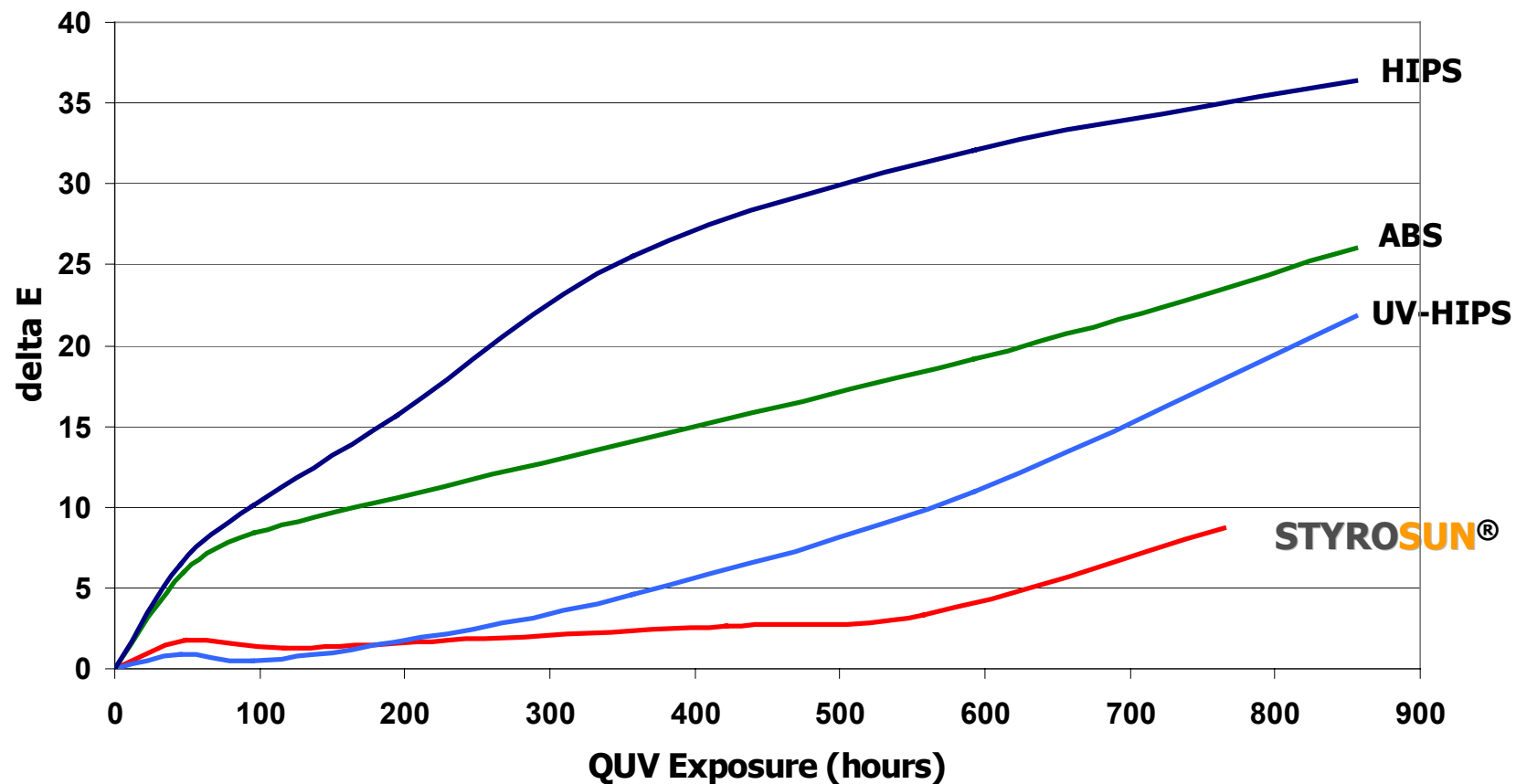
- Properties were determined on injection molded specimens at 23C and 50% R.H. unless otherwise specified
- Typical Values represent average laboratory values and are intended as guides only, not as specific specification limits

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	Styrosun®	HIPS	ABS (UV)	ASA
<i>PROCESSING</i>				
Pre-drying	No	No	2-4 h (80°C)	2-4 h (80°C)
Injection molding	Good	Excellent	Acceptable	Good
Extrusion	Good	Good	Acceptable	Good
Co-extrusion	Good	Good	Good	Good
Thermoforming	Excellent	Excellent	Good	Good
Recycling	Good	Good	Extra drying	Extra drying
<i>PROPERTIES</i>				
Color stability	Good	Minor	Minor	Excellent
Aging	Good	Minor	Minor	Acceptable

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Color Retention

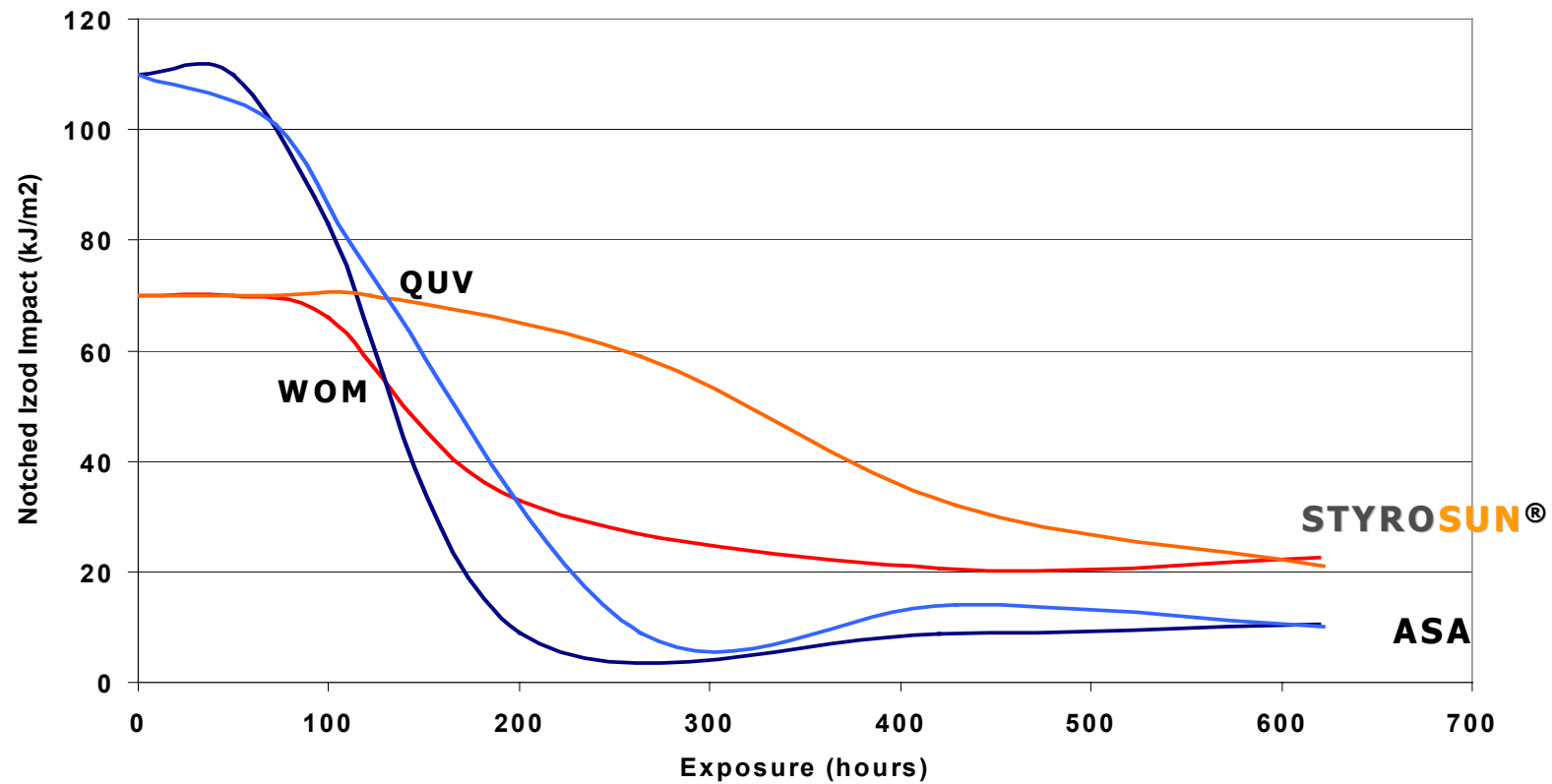


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Toughness Retention

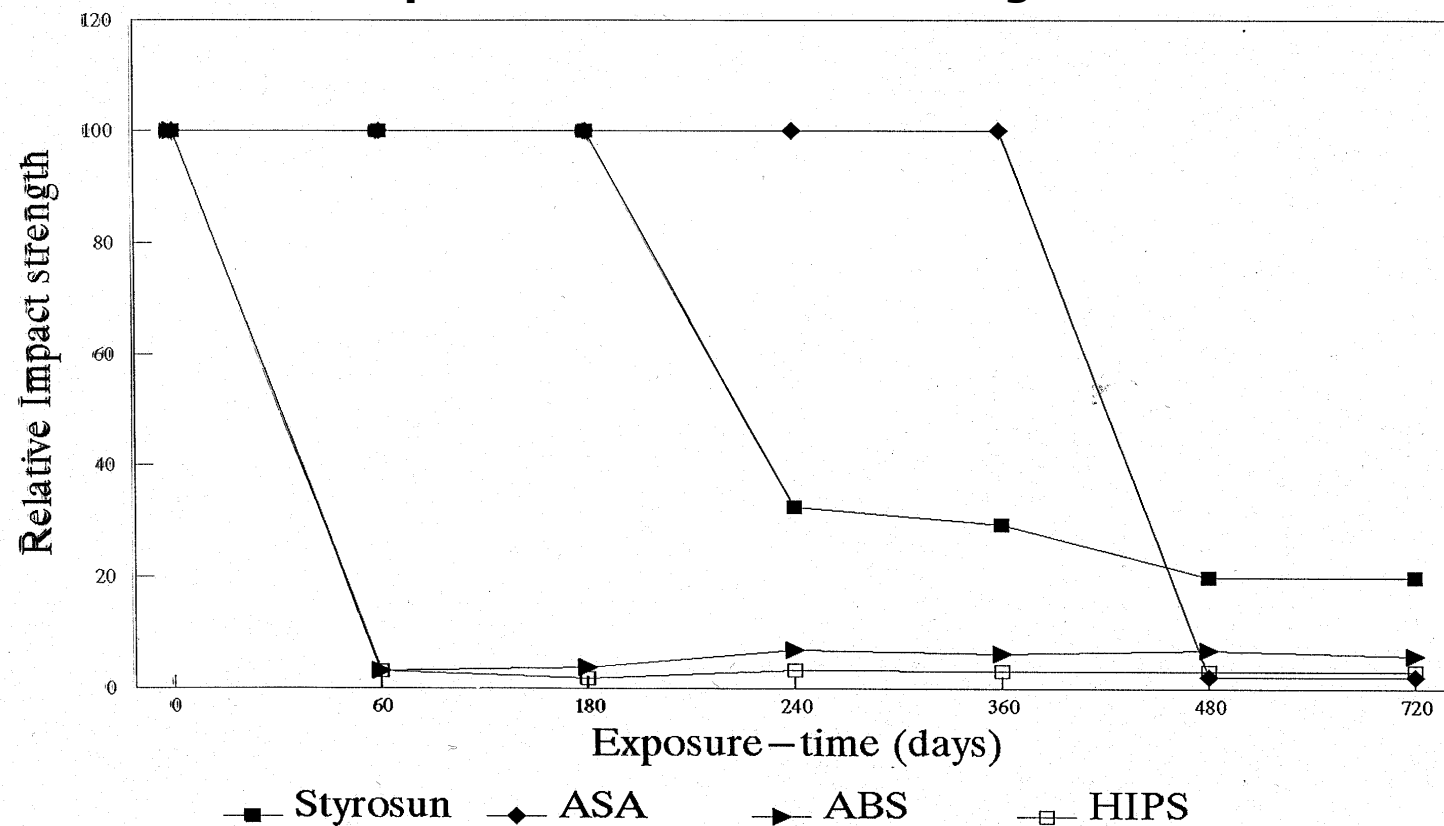


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Alpine Outdoor Weathering Test

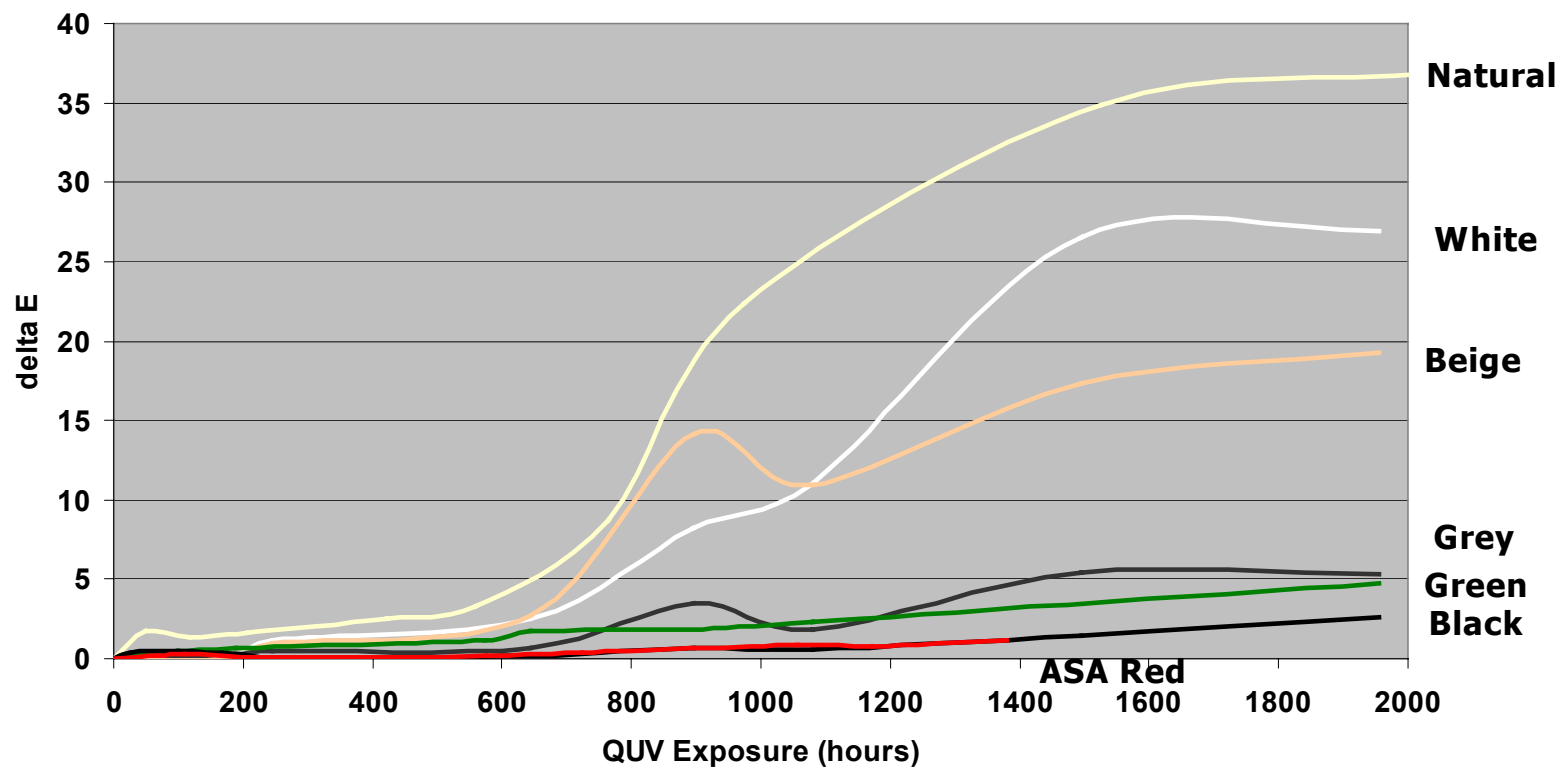


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Effect Color on QUV Stability



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Days

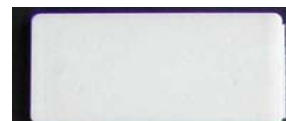
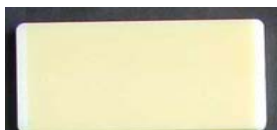
HIPS

ABS

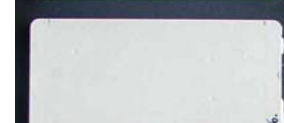
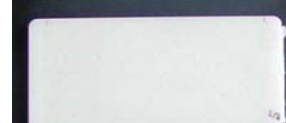
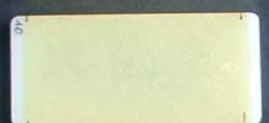
STYROSUN

ASA

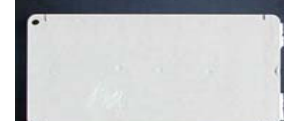
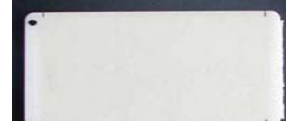
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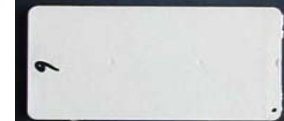
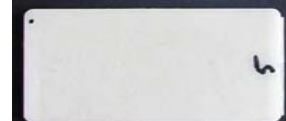
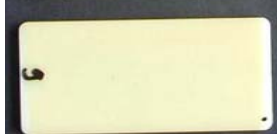
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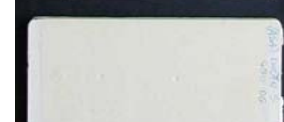
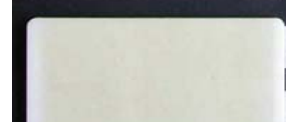
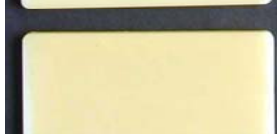
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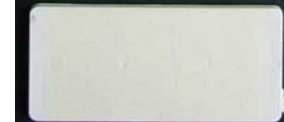
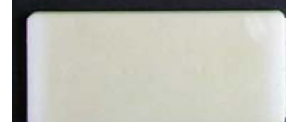
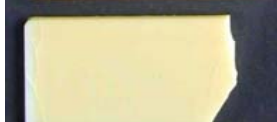
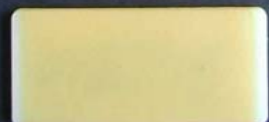
360



480



720

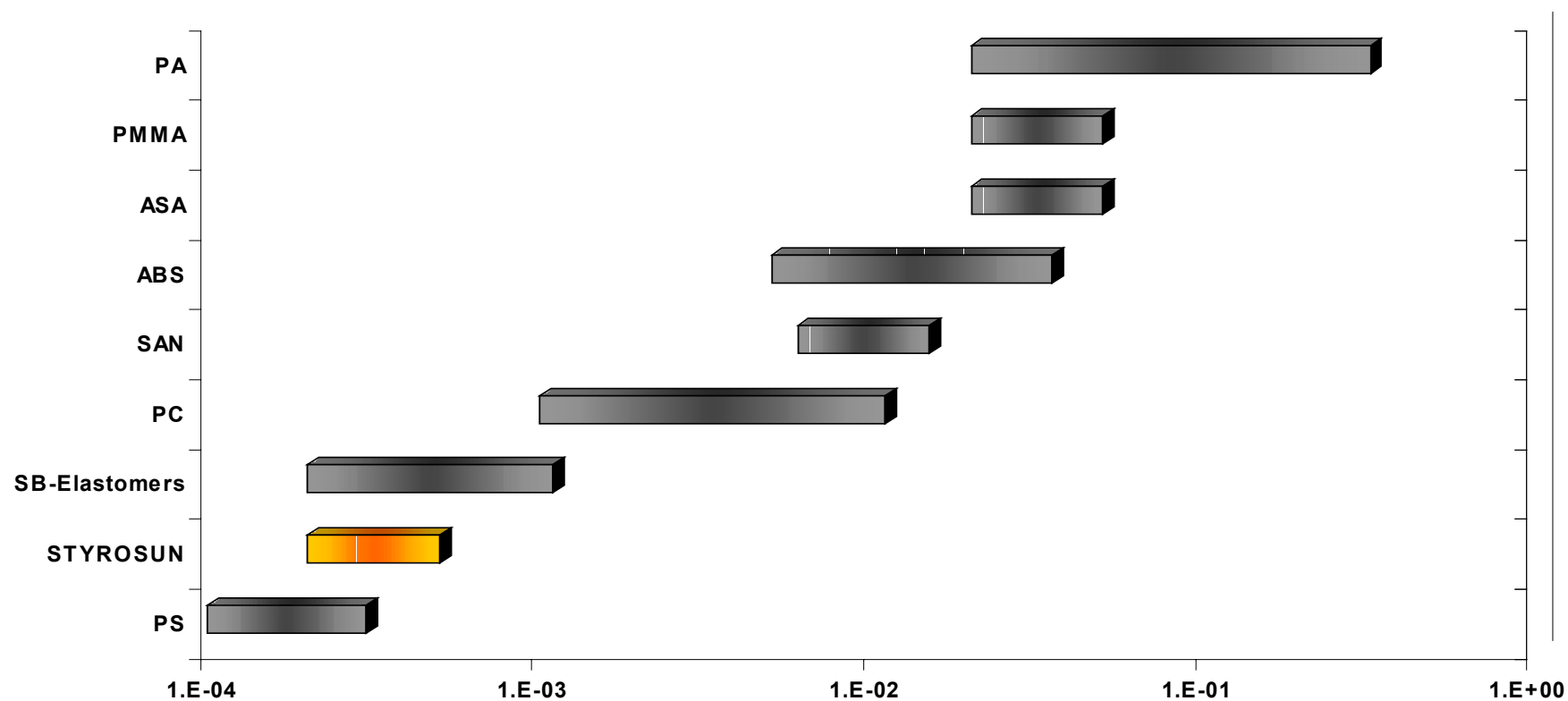


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Dielectric Loss Factor



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STYROSUN® Applications

80% Extrusion

20% Injection Molding

Appliances

- Rain gauges for weather stations
- Satellite telephone housings
- Satellite receiving dishes
- Pump housings
- Solariums

Construction

- Post and profile doors
- Windows, **Synthetic wood**
- Roof ventilation ducts
- Signs and billboards
- Cupboards

Recreation

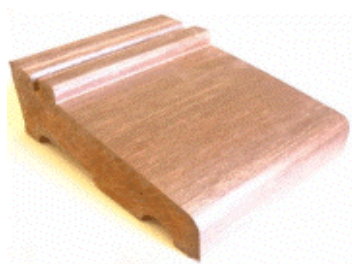
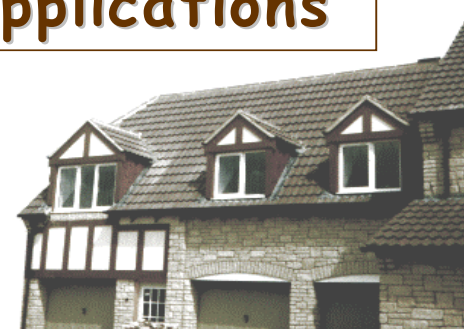
- Small boats
- Caravan body parts
- Ski boxes, Model airplanes
- Recreational vehicles
- Golf parts

Automotive

- Truck spoilers
- Translucent ski-light covers

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Synthetic Wood Applications

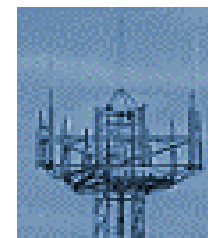
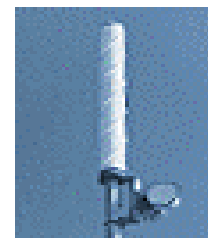
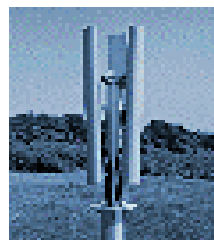
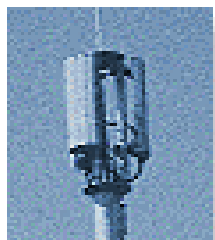


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Antenna Covers



U.K. Customer RACAL has plant in Texas !!

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Mobile Home Components



TABBERT



KABE

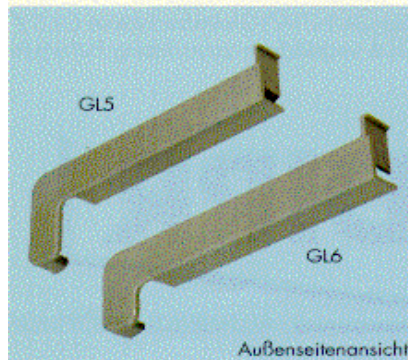


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STYROSON®

Window Profiles and Ventilation Covers



 **Electrolux**

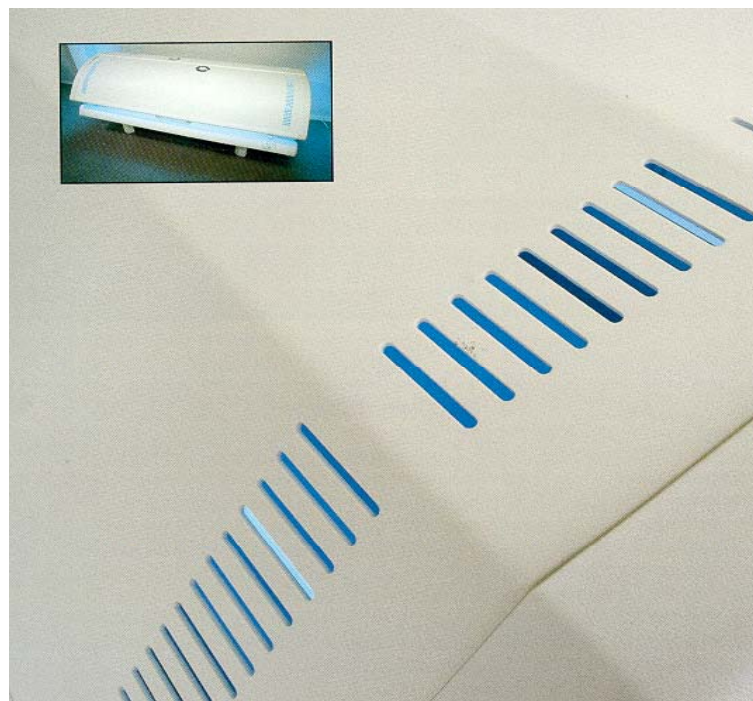
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Chimney cover



Solarium components