

## Innovative Fabrics for Architectural Structures

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## Innovations

- Semi Transparent Fabrics
- “Cool” Fabrics – Heat Shield
- Coloured, Back lit Fabrics

## Semi Transparent

- White fabrics – Typically 5-15% L.T.
- Some installations require more light
- Existing semi-transparent fabrics with low tensile strength but high transmission - 50%+
- Useful in some applications

## Low Strength Fabric on Frame Structure

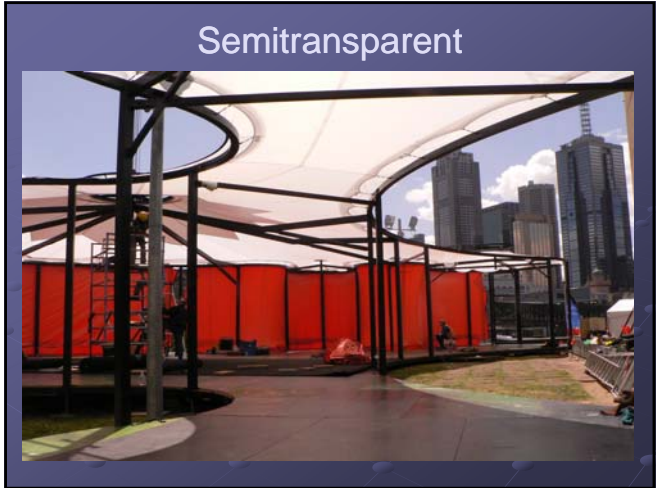


## White with Semi Transparent



## Semi-Transparent

- Improve natural lighting
- Reduce energy requirements
- Decorative effect
- Improve ambience
- Night time beacon – white or coloured lighting for dramatic effect



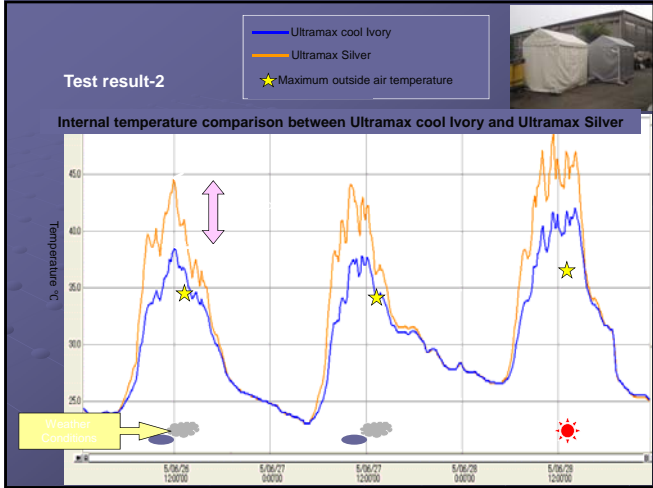
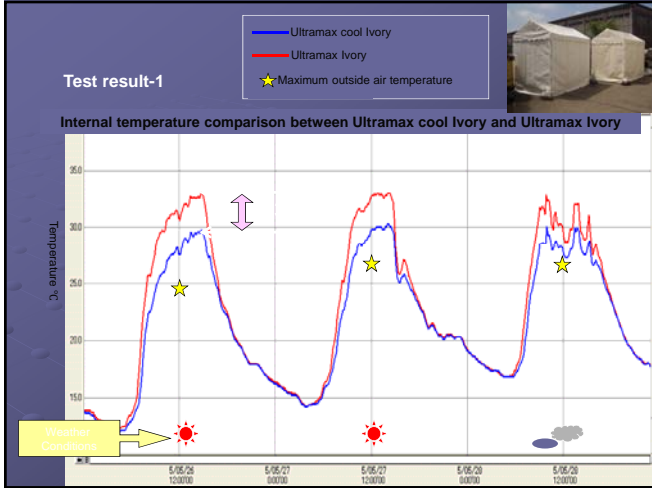
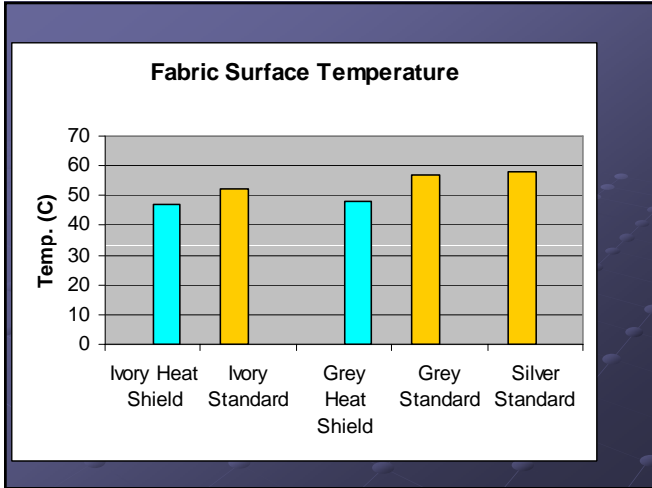
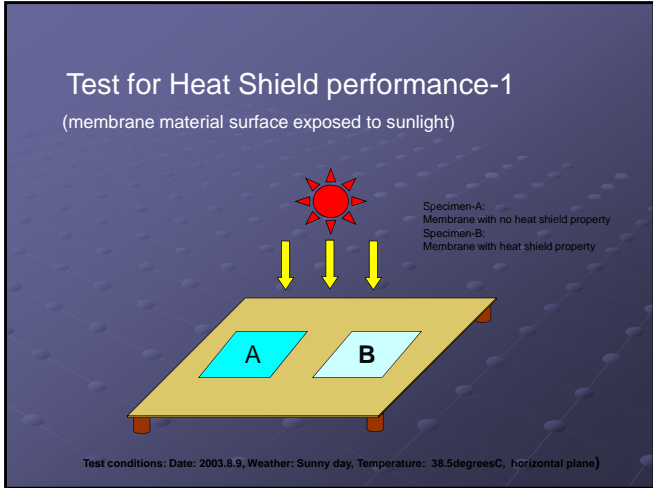
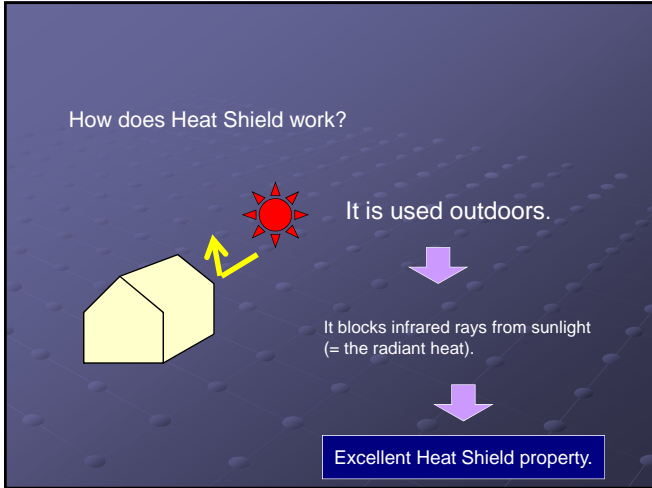
- ### High Strength Semi Transparent
- New range utilises same base cloth as existing white fabrics
  - Improved tensile strength
  - Suitable for larger structures
  - Can combine with white or other colours
  - (same biaxial behaviour)

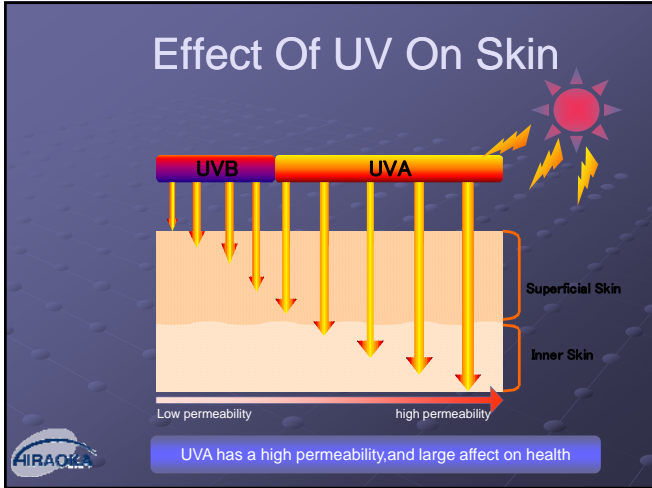
### Light Transmission

	Type 1	Type 2	Type 3
Tensile Strength	3100 N/50mm	4500 N/50mm	5700 N/50mm
L.T. White	13%	12%	11%
L.T. Clear	41%	35%	30%

- ### Applications
- Atriums
  - Shopping Centres
  - Sporting & Swimming Pool Covers
  - Tents
  - Combine with White or Colours

- ### Heat Shield
- Additive to reduce solar heat gain
  - Use in semi-transparent or coloured fabrics (white & other colours)
  - Applications for human and animal shelter





### Transmission, UV blocking, Heat shield

#### Sundream-Cool

Item Code	Translucency (%)	UV blocking rate		Heat Shield			Temperature difference in Summer(°C)
		UVB	UVA	HS (%)	IR Transmission (%)	Solar Radiation Heat(%)	
Sundream-SH	66.3	99.99	82.42	11.9	70.4	70.6	-----
Sundream-A	58	99.99	88.79	17.6	66.54	64.1	-1.9
<b>Sundream-Cool</b>	<b>53.6</b>	<b>99.99</b>	<b>95.35</b>	<b>33.4</b>	<b>44</b>	<b>47.7</b>	<b>-7.2</b>

Sundream-Cool: Excellent Transmission, UV blocking, Heat Shield



- ### Coloured Backlit Membranes
- Coloured Top Surface
  - Translucent bottom surface
  - Daytime colour
  - Nighttime - Glow



## Coloured Backlit



## Applications

- Corporate – match brand colours  
Petrol Stations, Franchise food outlets,  
etc.
- Aesthetic – bright or subtle colours
- Combine with White or High Translucency