

HUI CHENG ® Teflon PTFE Coated Fabric Architectural Membrane HCH-AR

HUI CHENG ® architectural fabrics are made PTFE coated glass fabric, The fluoropolymer PTFE is most durable fabric coating available, The PTFE is applied equally to both sides of the glass fabric, This encapsulates the glass fibers and protects them potential degradation due to moisture influx. Structures incorporating **HUI CHENG ®** Architectural Fabrics are strong, beautiful and enduring They require very little maintenance and will continue to outperform all other glazing systems over their 25+ year life.

HUI CHENG ® PTFE-Teflon ® Architectural Membrane

Olympics and World Exhibition China

In designing gymnasiums and other facilities for the 2008 Olympics, the 2010 World Exhibition and the 2010 Asian Games, many constructions will be using architectural membranes. The use of architectural membranes in construction has grown rapidly in China in recent years. In particular, architectural membranes have been used in constructing exhibition halls, super shopping malls, entertainment complexes, railway warehouses, wharf warehouses, airports, and super petrol stations, etc. All of these applications involve large spans.

Outdoor Lighting, Indoor light

HUI CHENG ® Architectural Membrane enables the construction of buildings with a stunning architectural profile, but the true beauty lies in **HUI CHENG ®** superior ability to transmit light. **HUI CHENG ®** brings the open, airy feeling of color-correct light indoors, filling even large sports complexes and industrial facilities with diffuse, natural daylight. **HUI CHENG ®** backlit luminosity at night creates a unique and dramatic architectural signature on the skyline.

Live Long-Term Durability

In contrast to traditional roofing materials that would require replacement, tests prove that **HUI CHENG ®** tensile structures provide up to 25 years or more of reliable service. There is no relaxation of the membrane from its original shape, even after years of withstanding high live loads, such as heavy snows and high winds.

Pollutants Resistant for Enduring Beauty Natural

The translucent characteristics and visual appeal of **HUI CHENG ®** are unaffected by age, climate, pollutants or discoloration. Its impervious Teflon®-PTFE coating makes **HUI CHENG ®** highly resistant to staining. **HUI CHENG ®** repels airborne particulates and chemicals that adhere to other materials. The natural action of rain keeps the surface clean and white.

Highly Energy Efficient result

HUI CHENG ® transmits up to 19% of daylight without the heat gain of traditional glazing. Shaded areas remain bright, yet cool, even on the hottest days. HVAC costs are lower compared to other glazing alternatives, because **HUI CHENG ®** minimizes the need for heat dissipation. Reduced lighting requirements during the day also result in a substantial reduction in energy costs.

Applicability Versatility and Building Utility

HUI CHENG® is an extremely versatile building material. It meets fire code requirements for virtually all types of construction, and remains unchanged in temperatures ranging from -100°F to +450°F. **HUI CHENG**®'s long list of attributes offers architects new flexibility in design. A variety of panel shapes can be combined into almost endless geometric configurations, allowing architects to address complex aesthetic and functional challenges while creating buildings of stunning beauty and excitement.

PTFE-Teflon Coated Fabric Architectural Membrane Heavy Weight Typical Properties Outer Membrane

Typical Properties	HCH-AR 100	HCH-AR 080	HCH-AR 075	HCH-AR 060	HCH-AR E100
Thickness Fabric (mm)	1.10±0.10	0.82±0.08	0.75±0.08	0.60±0.08	1.20±0.15
Coated Fabric Weight (g/m ²)	1590±150	1330±125	1300±125	1030±98	1250±125
Density (25mm/pc)	20x19±1	26x19±1	22 x 19±1	34 x 22±1	20 x 20±1
Tensile Strength (N/cm)	1672x1600	1372x1098	1285 x 1160	930x910	1150x1150
Elongation (%) below	12x17	7x10	9x14	13x15	6x8
Tearing off Intensity (N)	363 x 463	272 x 263	226 x 226	138 x 136	325x325
Scale off intensity (N/cm)	27	25	24	24	24
Solar Transmission, %	11±2	14±3	17±3	18±3	26±3
Solar Reflectance, %	70±10	75±10	75±10	75±10	70±10
Burning Characteristics Flame Spread Smoke Generation	5 max. 5 max.	5 max. 10 max	5 max. 20 max	5 max. 20 max	5 max. 10 max
Incombustibility of Substrates	Pass	Pass	Pass	Pass	Pass
Fire Resistance of Roof Coverings Burning Brand	Class A	Class A	Class A	Class A	Class A

Heavy Weight Typical Properties Of Inner Membrane

Typical Properties	HCH-AR0350	HCH-AR 0300	HCH-AR 0200
Thickness Fabric (mm)	0.35±0.07	0.30±0.07	0.23±0.05
Coated Fabric Weight (g/m ²)	490±80	385±80	305±80
Density (25mm/pc)	32 x 24	32 x 22	42 x 32
Tensile Strength (N/cm)	650 x 530	550 x 430	390 x 330
Elongation (%) below	10x15	10x10	10x15
Tearing off Intensity (N)	363 x 463	272 x 263	226 x 226
Scale off intensity (N/cm)	9.8	9.8	5.1
Solar Transmission, %	25±4	32±4	32±4
Solar Reflectance, %	72±10	72±10	72±10
Burning Characteristics	5 max.	5 max.	5 max.
Flame Spread	20 max	20 max	20 max
Smoke Generation			
Incombustibility of Substrates	Pass	Pass	Pass
Fire Resistance of Roof Coverings	Class A	Class A	Class A
Burning Brand			