



**SolarTuff**<sup>®</sup> SOLID  
Premium Polycarbonate Sheet

WHERE CLARITY IS SECOND TO NONE



**SolarTuff** is solid flat polycarbonate sheet with the highest clarity and impact strength, produced using the finest resin grades and the most advanced European technology executed with over 30 years of industry experience.

Having perfect transparency just like glass, yet being virtually unbreakable, SolarTuff is the one stop glazing solution which will easily blend in harmony with your existing exteriors and interiors.

SolarTuff protects you and your loved ones from the harmful UV rays, giving such comfort while enjoying the natural sunlight.

When quality and style are your way of living, SolarTuff is your absolute choice.

*SolarTuff adalah lembaran plastik polycarbonate yang memiliki kejernihan dan kekuatan berkualitas prima, dibuat dari bahan baku terbaik dan diproses menggunakan teknologi Eropa termutakhir oleh Impack Pratama Industri yang berpengalaman lebih dari 30 tahun di industri ini.*

*Selain bening dan tahan pecah, SolarTuff dirancang khusus untuk memenuhi kebutuhan kreatifitas desain interior dan ekterior anda.*

*SolarTuff dilengkapi dengan lapisan UV yang melindungi anda sekeluarga dari bahaya sinar ultra violet, memberikan anda kenyamanan menikmati suasana di sekitar anda.*

*Jika kualitas dan style menjadi standar gaya hidup anda, maka SolarTuff adalah pilihan yang paling tepat.*

## SPECIFICATIONS

Thickness	1,2	3
Width	1,100	1,220
Length	50,000	20,000
Pattern	Plain	Plain & Embossed
Color	Clear Bronze Grey	Clear Bronze Grey

For 0.6mm - 6mm thickness and customized sizes, please contact us

## LIGHT & HEAT TRANSMISSION

PATTERN	COLOR	LIGHT TRANSMISSION	HEAT TRANSMISSION
Plain	Clear	86%	90%
	Bronze	11%	81%
	Grey	3%	63%
Embossed	Clear	80%	78%
	Bronze	14%	70%
	Grey	4%	54%

## FEATURES

- Highest clarity, just like glass
- 250 times stronger than glass and 20 times stronger than acrylic
- Flat and smooth surface
- Leak-proof, under correct installation
- High impact resistance and virtually unbreakable
- Flexible and easy to handle and install
- Less structural support needed due to the lightweight feature
- UV-protected and weather resistant
- Acoustical insulation

## APPLICATIONS

- Transparent roofing, canopies, skylights, domes
- Green house glazing
- Highway enclosures for sound-proof purpose
- Public utilities glazing and partition
- Safety and security glazing
- Riot shield
- Machine guards
- Signage, light fixtures, neon signs
- Thermoforming and fabricated items

## KEUNGGULAN

- Jernih, sebinging kaca
- 250 kali lebih kuat dari kaca dan 20 kali dari akrilik
- Permukaan yang rata dan halus
- Tahan bocor dengan mengikuti cara instalasi yang disarankan
- Sangat tahan benturan dan tahan pecah
- Fleksibel dan mudah dipasang
- Ringan, sehingga hemat dalam penggunaan rangka
- Tahan terhadap perubahan cuaca dan sinar ultra violet
- Partisi kedap suara

## KEGUNAAN

- Atap transparan, kanopi, gazebo, kubah
- Atap rumah kaca
- Pembatas jalan tol kedap suara
- Partisi untuk bangunan umum yang terekspos dengan benturan dan vandalisme
- Partisi untuk kebutuhan keamanan dan sekuritas anda
- Tameng anti huru-hara
- Pelindung mesin-mesin pabrik
- Papan reklame, dekorasi lampu, kotak neon
- Mudah dibentuk dan difabrikasi dikarenakan tekstur yang lentur dan tahan pecah

## GENERAL PROPERTIES

PROPERTY	VALUE	UNIT	PROPERTY
Specific Gravity	1.2	g/cm <sup>3</sup>	ASTM-D792
Heat Distortion Temperature	135	°C	ASTM-D648
Water Absorption (24hours)	0.10	%	ASTM-D570
Operating Temperature	-20 to 120	°C	-
Tensile Stress at Break	65	Mpa	ASTM-D638
Tensile Modulus Elasticity	2300	Mpa	ASTM-D638
Tensile Elongation at Break	120	%	ASTM-D638
Flexural Strength Yield	100	Mpa	ASTM-D790
Flexural Modulus	2500	Mpa	ASTM-D790
IZOD Impact Strength	650-850	J/m	ASTM-D256
Compressive Strength	12500	PSI	ASTM-D695
Light Transmission	89	%	ASTM-D1003
Refractive Index	1.586	-	ASTM-D542

These are typical properties and are not intended for specification purposes. If minimum certifiable properties are required, please contact us





## INSTALLATION

Always install UV protected side facing the sun (marked by printed masking). Before installation, do not remove the masking as it is not possible to determine the UV protected side once the film is removed. Masking should be removed maximum 2 days after the installation.

**Caution:**  
Wrong side installation will void the warranty.

Minimum 5° slope is recommended to allow water flows, especially for roofing application.

Holes should be drilled at range 3-5mm from diameters of fastener, to allow thermal expansion during noon time and contraction at night.

**Caution:**  
Never use PVC gasket. PVC is incompatible with polycarbonate and will harm the panel. Damage by this will nullify the warranty.

Disclaimer: The pictures shown are examples of common applications of solid polycarbonate products and not meant to be our manufactured products installed.

## INSTALASI

Pasang Solartuff dengan permukaan UV menghadap sinar matahari (ditandai dengan printed masking). Untuk menghindari kesalahan pemasangan sisi UV, jangan membuka masking film sebelum Solartuff di pasang. Masking film harus dibuka paling lambat 2 hari setelah pemasangan.

**Perhatian:**  
Garansi tidak berlaku jika pemasangan terbalik.

Disarankan untuk memasang dengan kemiringan paling sedikit 5° agar air bisa mengalir, terutama untuk atap.

Diameter lubang baut harus lebih besar 3-5mm dari diameter baut untuk menyediakan ruang pemuaian Solartuff karena perbedaan suhu di siang hari dan malam hari.

**Perhatian:**  
Jangan memakai PVC gasket. PVC tidak compatible dengan polycarbonate dan dapat merusak polycarbonate. Garansi tidak berlaku untuk kerusakan dikarenakan hal ini.

Distributed by:

 **PT Impack Pratama Industri Tbk**  
Excellence through Passion

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