

POWER



*Blessing Industries with Natural  
Light.....*

**DUROTUFF**<sup>™</sup>  
POLYCARBONATE SHEET



# Quality & Aesthetics - A Perfect Combination

## Power Chem Plast Limited

We are into chemical business from last 25 years. Marketing experience has strengthened our belief that quality products add value and useful application knowledge. After establishing our name in the field of chemical business company felt the need to diversify its business and entered the business of polycarbonate sheets. The company had set up state-of-the-art manufacturing plant to make solid polycarbonate sheet through the co-extrusion process under the brand name **DUROTUFF™**. This process and choice of quality raw materials ensures uniform thickness, excellent, optimum strength and long life of the Product.



Today with the construction boom, there are great demands for modern, aesthetic building materials that are sturdy, tough, yet long-lasting. Roofing material too have undergone a sea change. More companies today are opting for dynamic, international looks with superior quality. **DUROTUFF's™** high impact strength and impressive physical properties, makes it an ideal choice to provide natural light and compliment the industrial, commercial and agriculture roofing system. The company have in-house facility to make profile sheets, maximum length up to 8 mtrs. of different metal profiles for lighting in Industrial sheds.

## Features of **DUROTUFF™**

- High Impacts Strength
- Resistance to Yellowness
- High Light Transmission
- Safe Fire Performance
- Light Weight
- Temperature Resistant
- Save Energy
- Ideal for Corrosive Industrial Environment
- Excellent Transparency
- UV Resistance



# ation to Match Your Roofing Needs

## Area of Application

As highlighted earlier, these Polycarbonate Corrugated Sheets are used principally in industrial applications which include Industrial skylights, Slighting and North light glazing. However, these corrugated roofing sheets may also be used in commercial buildings, infra structural complexes and residential applications. Following are a few typical application areas.

- Skylights in railway stations & bus stands
- Skylights for large warehouses
- Natural lighting for operational areas in airports, ports, cargo complexes etc.
- Terrace covering, chajjas and private extensions.
- Green houses for critical cash crops, sensitive to climate changes.
- Schools & educational institutions.
- Weather protection for aquaculture ponds.
- Bus Q shelters.

## Comparison between FRP & Polycarbonate Sheet

Property	Polycarbonate	FRP
Impact Resistance	Excellent	Good
Weather Resistance	Excellent	Poor
Temperature Resistance	Up to 120 Deg. C	Below 100 Deg. C
Light Transmission	Up to 89%	Up to 80%**
Fire Spread	Self Extinguishing	Flammable
Thickness	Uniform	Varying
Maintenance	Easy	Difficult*
TAC Approval (% of Total Roof Area)	5%	Only 2%







## THE PERFECT CHOICE

You can be assured that from transport to installation, **DUROTUFF™** corrugated sheet will maintain its durability. Even when exposed to elevated temperatures over a long period of time, it will maintain its structural integrity. It won't crack or split when cut or drilled and can be easily fabricated using standard tools. It's ideal for quick, professional installation and works equally well for any do-it-yourself building project.

## DUROTUFF™ Polycarbonate Sheets Properties

Classification	Teast Item	Test Method	Unit	Durotuff™
Physical Properties	Specicity Gravity (at 23± 1°C)	ASTM D792-91	g/cm <sup>3</sup>	1.2
	Hardness	ASTM D785-93	M Scale	119
Mechanical Properties	Tensile Strength	ASTM D638-99	Mpa	64.4
	Flexural Strength	ASTM D790-92	Mpa	87.2
	Flexural Modulus	ASTM D790-92	Mpa	2382
	Compression Strength	ASTM D695-95	Mpa	66.7
	Impact Strength	ASTM D256-93a	J/m	902
Thermal Properties	Heat distortion temperature	ASTM D648-98	°C	137
	Flammability	UL94	---	V2

## DUROTUFF™ Profile Sheet Range

Profile Name	Profile	Pitch mm	Depth mm	Width Trimmed mm	Net Coverage mm	Thickness mm
Sinus 76/18		76	18	1070	1020	1.2, 1.5, 2, 3
Greca 76/16		76	16	1070	1020	1.2, 1.5, 2, 3
BSI 146/48		146	48	1050	1000	1.5, 2, 3
Industrial (customized)		---	---	---	---	1.5, 2, 3

### Availability & dimension of DUROTUFF™ industrial profile

Polycarbonate corrugated sheets are available in matching profile to most of the contemporary corrugated roofing sheets. The dimension are generally governed by the customer requirement and hence we offer tailor-made solution in terms of choosing the right product and the dimensions in which it is required for a particular application. An island skylight configuration would require polycarbonate corrugated sheets in dimension identical to the corrugated roofing sheets. In strip-light & north-light configuration it may be varied as per recommendation of the Architect/Counseling Engineer. The Maximum limit is subject to the process area lamination which can be upto 1100mm in width a maximum of 8000mm in length.

- \* **DUROTUFF™** profile sheets range in available in both embossed and compact
- \* Higher thickness will be available upon specific inquiry
- \* Colour are also available upon specific inquiry

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