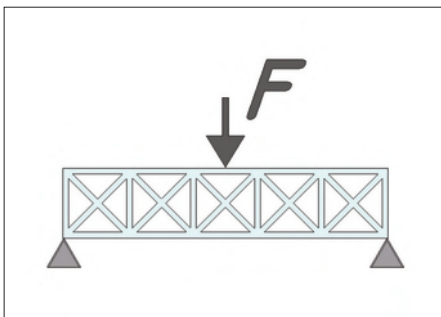
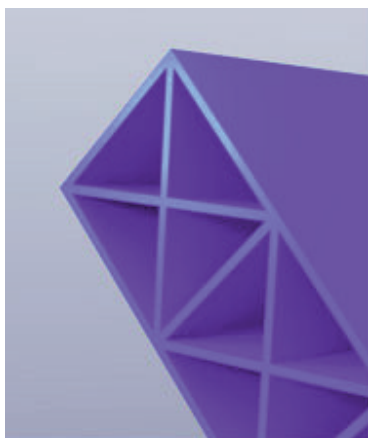
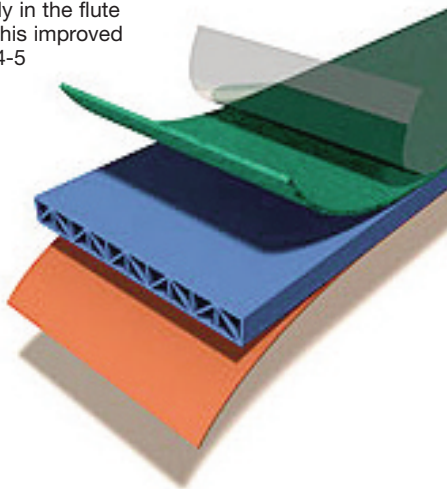


# Cross X

## Double-Wall, Extra Rigid Polypropelene Sheets

Totally new design with cross members forming the medium and connected to the inner and outer walls. The vertical walls offers exceptional strength and rigidity to the polypropylene sheet. The structural cross members allows the structure to take forces in all directions not only in the flute direction like standard plastic corrugated sheets; this improved cross section design makes the Cross X material 4-5 times stronger and more durable than standard plastic corrugated sheet. The tests results show that Cross X exceeds the performance of plastic corrugated many times over. Cross X achieves this performance at a comparable price to traditional plastic corrugated.

The new Cross X polypropylene material can be used in all the standard applications where plastic corrugated is used, like packaging, boxes, sleeves etc. but with significant cost savings due to the increased durability of the Cross X material over the standard plastic corrugated.



## Cross X 8.0

Specific Weight: ..... 2000 g/m<sup>2</sup>  
Thickness: ..... 8.0 mm

## Cross X 9.0

Specific Weight: ..... 1750 g/m<sup>2</sup>  
2000 g/m<sup>2</sup>  
Thickness: ..... 9.0 mm

## Cross X 10.0

Specific Weight: ..... 1800 g/m<sup>2</sup>  
2000 g/m<sup>2</sup>  
2500 g/m<sup>2</sup>  
2700 g/m<sup>2</sup>  
Thickness: ..... 10.0 mm

## Cross X 12.0

Specific Weight: ..... 2700 g/m<sup>2</sup>  
3000 g/m<sup>2</sup>  
Thickness: ..... 12.0 mm

**Note:** Sheet Thickness Tolerance is +/- 5%

*The internal structural design distributes the bending forces over the diagonal and vertical members, conferring exceptional strength and rigidity to the material.*

### ADVANTAGES:

- Extremely Lightweight and Rigid
- High Compressive and Impact Strength
- Smooth and Level Surface
- Moisture Resistance
- Suitable for Contact with Food and Water
- Compatible with most Printing Processes
- Excellent Insulation
- Excellent Chemical Resistance
- Custom Sizes Available

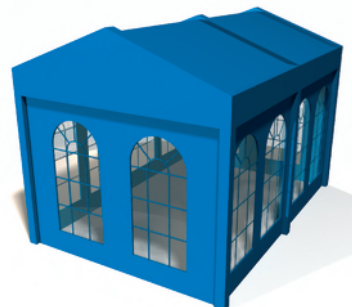
### OPTIONS:

- Corona Treated
- Custom Sizes
- Custom Colors
- Custom Imprinting
- ESD Conductive 10/4 to 10/8 ohms
- UV Resistant
- Talcum Additive for Increased Strength
- Fire Resistant



### AVAILABLE SIZES:

- Standard sheet size: 1,981mm x 2,235mm (78"x88")
- Special Order up to 2,400mm (94.5") Wide by any Required Length
- Custom Fabricated Modules and Sleeves.



## Cross X: Performance Data

### Properties:

Area Weight:	3000 g/m <sup>2</sup>
Overall Thickness:	10 mm ± 0.5mm
Tolerance:	0.1 %
Tensile Strength:	2200 N/mm <sup>2</sup>
Elongation at Break:	20 %
Surface Crush Resistance:	800 kN/m <sup>2</sup>

### Bending Strength:

### Bending in mm:

Load kN/m <sup>2</sup>	Cross	Parallel
12	8	11
24	15	19
37	20	25
49	26	33
61	34	42

**Note:** Sheet Thickness Tolerance is +/- 5%

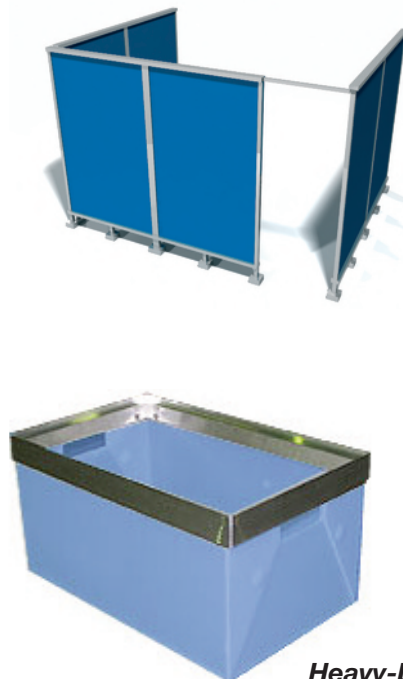
## Special Applications:

Sohner Plastics utilizes CrossX in a variety of applications.

We can design and manufacture any custom application to your exact needs.



**Shows and  
POS Displays**



**Heavy-Duty Boxes**

**Partitions**



**Interiors for RV's and  
Specialty Vehicles**

## Chemical Resistance of Plastic Resins

	PP (Cross X)	PE	PB	Rigid PVC	Flexible PVC	PS	SB	SAN	ABS	ASA	PMMA	PC
Acetic acid, concentrated:	●	●	●	○	○	○	○	○	○	○	○	○
Acetone:	●	○	○	○	○	○	○	○	○	○	○	○
Alcoholic beverages:	●	●	●	●	●	●	●	●	●	●	●	●
Ammonia, aqueous:	●	●	●	●	●	●	●	●	●	●	●	●
Benzene:	○	○	○	○	○	○	○	○	○	○	○	○
Diesel fuel:	●	●	●	●	●	●	●	●	●	●	●	●
Dishwashing soap:	●	●	●	●	○	○	○	○	○	○	○	○
Flourinated hydrocarbons:	○	○	○	○	○	○	○	○	○	○	○	○
Fruit juices:	●	●	●	●	●	●	●	●	●	●	●	●
Hydrofluoric acid, up to 20%:	●	●	●	●	○	○	○	○	○	○	○	○
Hydrofluoric acid, up to 35%:	●	●	●	●	○	○	○	○	○	○	○	○
Lundry detergents:	●	●	●	●	○	○	○	○	○	○	○	○
Methanol:	●	●	●	●	○	○	○	○	○	○	○	○
Milk:	●	●	●	●	○	○	○	○	○	○	○	○
Motor oil:	●	●	●	●	○	○	○	○	○	○	○	○
Ozone:	○	○	○	○	○	○	○	○	○	○	○	○
Petrol (gasoline):	○	○	○	○	○	○	○	○	○	○	○	○
Potassium hydroxide, conc.:	●	●	●	●	○	○	○	○	○	○	○	○
Silicone oil:	●	●	●	●	○	○	○	○	○	○	○	○
Soap solution, aqueous:	●	●	●	●	○	○	○	○	○	○	○	○
Sodium hydroxide, conc.:	●	●	●	●	○	○	○	○	○	○	○	○
Sulfuric acid, up to 40%:	●	●	●	●	○	○	○	○	○	○	○	○
Toluene:	○	○	○	○	○	○	○	○	○	○	○	○
Trichloroethylene:	○	○	○	○	○	○	○	○	○	○	○	○
Vegetable oils/vegetable fats:	●	●	●	●	○	○	○	○	○	○	○	○
Water/salt water, cold:	●	●	●	●	●	●	●	●	●	●	●	●
Water, hot:	●	●	●	●	○	○	○	○	○	○	○	○

● = Resistant ○ Conditionally Resistant ○ Not Resistant

All information above, while provided to the best of our knowledge and experience, is provided solely as a general guide and should be confirmed by testing users' specific applications.

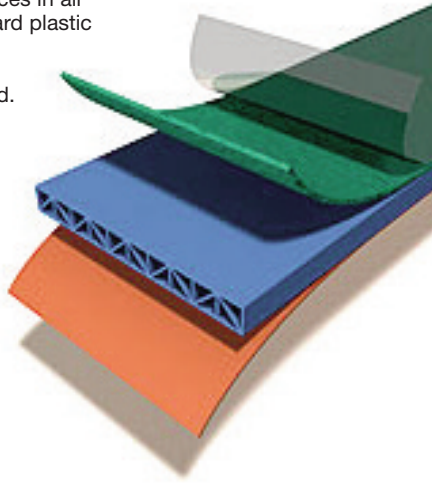


# Cross M

## Double-Wall, Extra Rigid Polypropelene Sheets

Totally new design with diagonal members, in addition to the vertical ones, connecting the double outside walls and the vertical walls confers exceptional strength and rigidity to the polypropylene sheet. The structural diagonal members allows the structure to take forces in all directions not only in the flute direction like standard plastic corrugated; this improved cross section design makes the Cross M material 4-5 times stronger and more durable than standard plastic corrugated. The tests results of equivalent materials shows that Cross M performance exceeds many times, in all respects the plastic corrugated, at about the same cost.

The new Cross M polypropylene material can be used in all standard applications as used for standard plastic corrugated. Applications include packaging, boxes, sleeves, etc., but with significant cost savings due to the increased durability of the Cross M material over the standard plastic corrugated.



### ADVANTAGES:

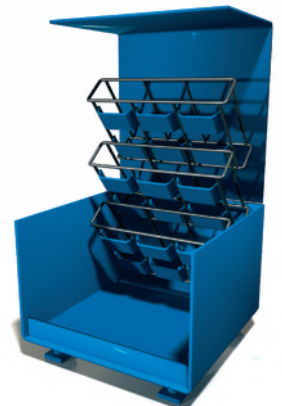
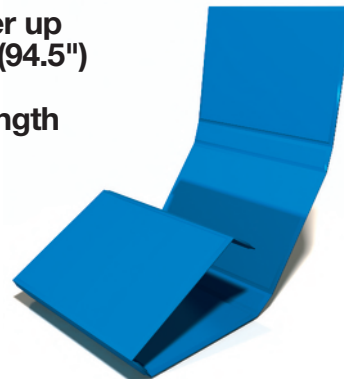
- Extremely Lightweight and Rigid
- High Compressive and Impact Strength
- Smooth and Level Surface
- Moisture Resistance
- Suitable for Contact with Food and Water
- Compatible with most Printing Processes
- Excellent Insulation
- Excellent Chemical Resistance
- Custom Sizes Available

### OPTIONS:

- Corona Treated
- Custom Sizes
- Custom Colors
- Custom Imprinting
- ESD Conductive 10/4 to 10/8 ohms
- UV Resistant
- Talcum Additive for Increased Strength
- Fire Resistant

### AVAILABLE SIZES:

- Standard sheet size: 1,981mm x 2,235mm (78"x88")
- Special Order up to 2,400mm (94.5") Wide by any Required Length
- Custom Fabricated Modules & Sleeves.



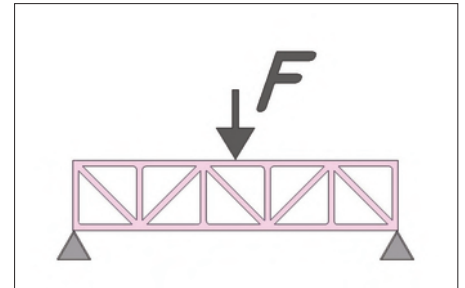
## Cross M 5.0

Specific Weight: ..... 1250 g/m<sup>2</sup>  
1500 g/m<sup>2</sup>  
Thickness: ..... 5.0 mm

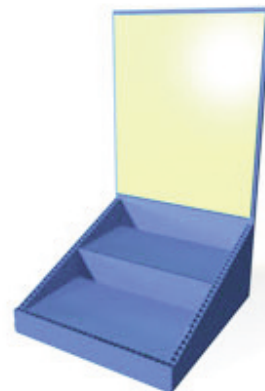
## Cross M 6.0

Specific Weight: ..... 1500 g/m<sup>2</sup>  
1800 g/m<sup>2</sup>  
Thickness: ..... 6.0 mm

**Note:** Sheet Thickness Tolerance is +/- 5%



*The internal structural design distributes the bending forces over the diagonal and vertical members, conferring exceptional strength and rigidity to the material.*



## Cross M: Performance Data

### Properties:

Area Weight:	1500 g/m <sup>2</sup>
Overall Thickness:	5 mm ± 0.5mm
Tolerance:	0.1 %
Tensile Strength:	2200 N/mm <sup>2</sup>
Elongation at Break:	20 %
Surface Crush Resistance:	600 kN/m <sup>2</sup>

### Bending Strength: Bending in mm:

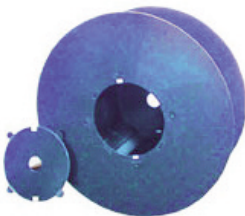
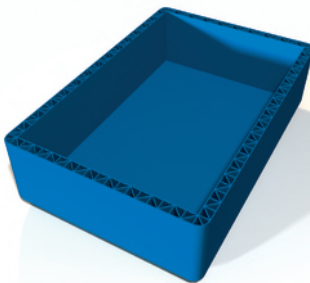
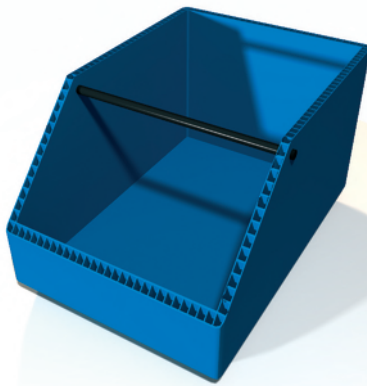
Load kN/m <sup>2</sup>	Cross	Parallel
12	18	20
18	22	26
24	29	34
31	36	48

Note: Sheet Thickness Tolerance is +/- 5%

## Special Applications:

Sohner Plastics utilizes Cross M in a variety of applications.

We can design and manufacture any custom application to your exact needs.



## Chemical Resistance of Plastic Resins

	PP (Cross M)	PE	PB	Rigid PVC	Flexible PVC	PS	SB	SAN	ABS	ASA	PMMA	PC
Acetic acid, concentrated:	●	●	●	○	○	○	○	○	○	○	○	○
Acetone:	●	○	○	○	○	○	○	○	○	○	○	○
Alcoholic beverages:	●	●	●	●	●	●	●	●	●	●	●	●
Ammonia, aqueous:	●	●	●	●	●	●	●	●	●	●	●	●
Benzene:	○	○	○	○	○	○	○	○	○	○	○	○
Diesel fuel:	●	●	●	●	○	○	○	○	○	○	○	○
Dishwashing soap:	●	●	●	●	○	○	○	○	○	○	○	○
Flourinated hydrocarbons:	○	○	○	○	○	○	○	○	○	○	○	○
Fruit juices:	●	●	●	●	○	○	○	○	○	○	○	○
Hydrofluoric acid, up to 20%:	●	●	●	●	○	○	○	○	○	○	○	○
Hydrofluoric acid, up to 35%:	●	●	●	●	○	○	○	○	○	○	○	○
Lundry detergents:	●	●	●	●	○	○	○	○	○	○	○	○
Methanol:	●	●	●	●	○	○	○	○	○	○	○	○
Milk:	●	●	●	●	○	○	○	○	○	○	○	○
Motor oil:	●	●	●	●	○	○	○	○	○	○	○	○
Ozone:	○	○	○	○	○	○	○	○	○	○	○	○
Petrol (gasoline):	○	○	○	○	○	○	○	○	○	○	○	○
Potassium hydroxide, conc.:	●	●	●	●	○	○	○	○	○	○	○	○
Silicone oil:	●	●	●	●	○	○	○	○	○	○	○	○
Soap solution, aqueous:	●	●	●	●	○	○	○	○	○	○	○	○
Sodium hydroxide, conc.:	●	●	●	●	○	○	○	○	○	○	○	○
Sulfuric acid, up to 40%:	●	●	●	●	○	○	○	○	○	○	○	○
Toluene:	○	○	○	○	○	○	○	○	○	○	○	○
Trichloroethylene:	○	○	○	○	○	○	○	○	○	○	○	○
Vegetable oils/vegetable fats:	●	●	●	●	○	○	○	○	○	○	○	○
Water/salt water, cold:	●	●	●	●	○	○	○	○	○	○	○	○
Water, hot:	●	●	●	●	○	○	○	○	○	○	○	○

● = Resistant ○ Conditionally Resistant ○ Not Resistant

All information above, while provided to the best of our knowledge and experience, is provided solely as a general guide and should be confirmed by testing users' specific applications.





# Standard H

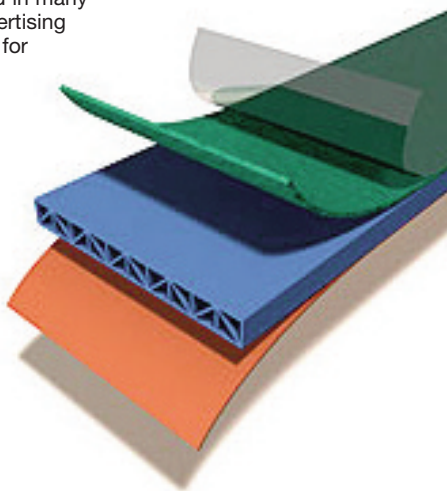
## Thin Wall Polypropylene Sheets

Our standard fluted plastic corrugated polypropylene sheets are manufactured to the highest quality using modern "air cushion" system to produce a flat surface with satin effect.

Light weight and durable this material can be used in many applications instead of corrugated paper. The advertising and graphic houses have been using this material for political campaigns, point of sale signage and boxes, indoor or outdoor signs, special event advertising, etc

The Standard H sheets are used successfully in fabricating boxes and containers with or without laminating protective spun bond, or other materials for Class A surfaces.

The polypropylene is 100% recyclable and environmental friendly. Testing of comparable materials indicates that plastic corrugated performance exceeds many times that of cardboard.



*Extra Flat Surface.  
Perfect for Printing.  
Corona Treated.*

## ADVANTAGES:

- Extremely Lightweight and Rigid
- High Compressive and Impact Strength
- Smooth and Level Surface
- Moisture Resistance
- Suitable for Contact with Food and Water
- Compatible with most Printing Processes
- Excellent Insulation
- Excellent Chemical Resistance
- Custom Sizes Available



## AVAILABLE SIZES:

- Standard sheet size: 1,981mm x 2,235mm (78"x88")
- Special Order up to 2,400mm (94.5") Wide by any Required Length
- Custom Fabricated Modules and Sleeves.

## Standard H 2.0

Specific Weight: ..... 280 g/m<sup>2</sup>  
350/400 g/m<sup>2</sup>  
Thickness: ..... 2.0 mm

## Standard H 2.5

Specific Weight: ..... 350 g/m<sup>2</sup>  
450 g/m<sup>2</sup>  
Thickness: ..... 2.5 mm

## Standard H 3.0

Specific Weight: ..... 450 g/m<sup>2</sup>  
600/800 g/m<sup>2</sup>  
Thickness: ..... 3.0 mm

## Standard H 3.5

Specific Weight: ..... 650 g/m<sup>2</sup>  
800 g/m<sup>2</sup>  
Thickness: ..... 3.5 mm

## Standard H 4.0

Specific Weight: ..... 650 g/m<sup>2</sup>  
800/1000 g/m<sup>2</sup>  
Thickness: ..... 4.0 mm

## Standard H 5.0

Specific Weight: ..... 650 g/m<sup>2</sup>  
1250/1500 g/m<sup>2</sup>  
Thickness: ..... 5.0 mm

## Standard H 6.0

Specific Weight: ..... 1750 g/m<sup>2</sup>  
2000 g/m<sup>2</sup>  
Thickness: ..... 6.0 mm

**Note:** Sheet Thickness Tolerance is +/- 5%



## Chemical Resistance of Plastic Resins

	PP (Standard H)	PE	PB	Rigid PVC	Flexible PVC	PS	SB	SAN	ABS	ASA	PMMA	PC
Acetic acid, concentrated:	●	●	●	○	○	○	○	○	○	○	○	○
Acetone:	●	○	○	○	○	○	○	○	○	○	○	○
Alcoholic beverages:	●	●	●	●	●	●	●	●	●	●	●	●
Ammonia, aqueous:	●	●	●	●	●	●	●	●	●	●	●	●
Benzene:	○	○	○	○	○	○	○	○	○	○	○	○
Diesel fuel:	●	●	●	●	○	○	●	●	●	●	●	●
Dishwashing soap:	●	●	●	○	○	○	○	○	○	○	○	○
Fluorinated hydrocarbons:	○	○	○	○	○	○	○	○	○	○	○	○
Fruit juices:	●	●	●	●	○	○	○	○	○	○	○	○
Hydrofluoric acid, up to 20%:	●	●	●	●	○	○	○	○	○	○	○	○
Hydrofluoric acid, up to 35%:	●	●	●	●	○	○	○	○	○	○	○	○
Laundry detergents:	●	●	●	●	○	○	○	○	○	○	○	○
Methanol:	●	●	●	○	○	○	○	○	○	○	○	○
Milk:	●	●	●	○	○	○	○	○	○	○	○	○
Motor oil:	●	●	●	○	○	○	○	○	○	○	○	○
Ozone:	○	○	○	○	○	○	○	○	○	○	○	○
Petrol (gasoline):	○	○	○	○	○	○	○	○	○	○	○	○
Potassium hydroxide, conc.:	●	●	●	○	○	○	○	○	○	○	○	○
Silicone oil:	●	●	●	○	○	○	○	○	○	○	○	○
Soap solution, aqueous:	●	●	●	○	○	○	○	○	○	○	○	○
Sodium hydroxide, conc.:	●	●	●	○	○	○	○	○	○	○	○	○
Sulfuric acid, up to 40%:	●	●	●	○	○	○	○	○	○	○	○	○
Toluene:	○	○	○	○	○	○	○	○	○	○	○	○
Trichloroethylene:	○	○	○	○	○	○	○	○	○	○	○	○
Vegetable oils/vegetable fats:	●	●	●	○	○	○	○	○	○	○	○	○
Water/salt water, cold:	●	●	●	○	○	○	○	○	○	○	○	○
Water, hot:	●	●	●	○	○	○	○	○	○	○	○	○

● = Resistant ○ Conditionally Resistant ○ Not Resistant

All information above, while provided to the best of our knowledge and experience, is provided solely as a general guide and should be confirmed by testing users' specific applications.

## Special Applications:

Sohner Plastics utilizes Standard H in a variety of applications.

We can design and manufacture any custom application to your exact needs.

