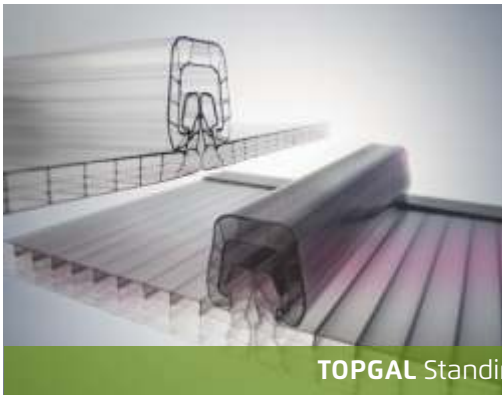




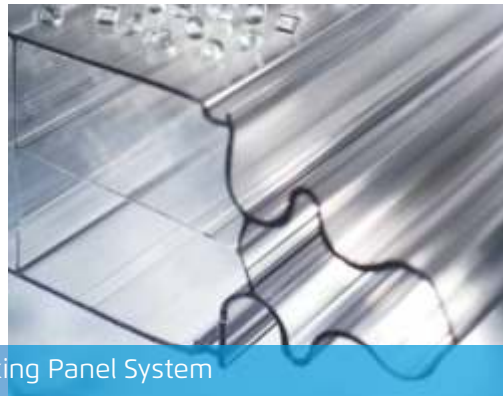
MULTIWALL POLYCARBONATE SHEETING SYSTEMS



TOPGAL Standing Seam System



SEPLUX Interlocking Panel System



CLEARDEK® is a new generation of multiwall polycarbonate panel systems that allow for the ingress of natural light, yet is very strong, and provides thermal insulation. CLEARDEK may be used in a wide variety of roofing and cladding designs, flat or cold (spring) curved.

- Controlled daylight transmission
- High thermal insulation and UV protection
- Withstands high wind loads
- High impact strength - virtually unbreakable
- Resistance to extremes in temperature improves functional performance
- Lightweight, easy and fast to install, no heavy substructure required
- Can be cold curved - see page 3 for radii
- Flame retardant- no need to add extinguishing or fire-retardants materials
- Naturally absorbs sound, reducing the need for acoustic insulation.
- 100% recyclable - environmentally friendly

Typical Applications:

TOPGAL STANDING SEAM SYSTEM

- Roofing
- Walkways, entrances and open recreation areas
- Decorative interior and exterior cladding

40⁵PX SEPLUX INTERLOCKING PANEL SYSTEM

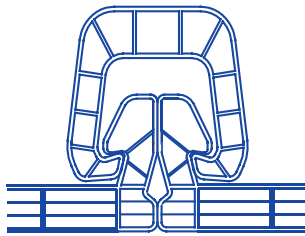
- Cladding
- Facades
- Decorative interior walling and partitions

TOPGAL

The **CLEARDEK STANDING SEAM** system called **TOPGAL** is engineered to be fixed by clips which fasten under the seam, allowing the panels to be clamped in place without any fastener penetration through the panels. This makes the standing seam system both watertight and long lived.

The panels range from 3-7 layer multiwall construction which gives it the inherent strength to withstand high wind loads, and also provide outstanding R values.

CLEARDEK STANDING SEAM is based on two unique features: The under-sheet clips which fix the sheeting to the purlins accommodate thermal expansion and contraction, and an outer seam over the raised flanges on the side laps make for a water-tight surface area.



TOPGAL standing seam system for optimum water tightness

The **Topgal** system is supplied complete with polycarbonate or aluminum joiners, end-caps, and edging profiles to create a robust fully framed installation which is highly watertight.

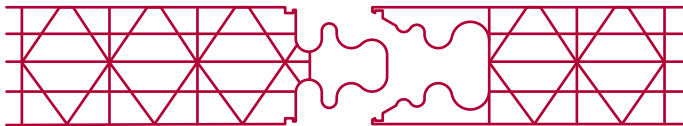
- Can be used on roofs with min 7 degree slope
- 3 to 7 layer multiwall structure for high strength
- Guaranteed for 10 years against discolouration, defect



**40^{5PX}
SEPLUX**

The **CLEARDEK INTERLOCKING PANEL** system called **SEPLUX** is engineered with an interlocking male female joint which provides strength and weatherproofing.

The panels range from 3-9 layer multiwall construction which gives it the inherent strength to withstand high wind loads, and also provide outstanding R values.



SEPLUX interlocking panel system for strength and aesthetics

The male-female interlock provides lateral strength, allowing the system to stand up to full wall height without the use of lateral supports, making for a clean look which is modern and flexible in application, whether inside or outside. It also provides a completely flat surface for graphics (silk screening), permits the easy installation of window and door apertures and its acoustic properties make it ideal for space partitioning in offices and public spaces.

Aluminium framing on all four sides provides strength and stability.

- Weight of 4kg / m² - half the weight of glass of same strength
- 2 x more effective than double glazing
- Can stand 2,5 m high with no lateral support
- Reduces sound by 17 dB
- 5 wall structure for high strength and rigidity
- Guaranteed for 10 years against discolouration, defect



Colours and Optical Properties





Colours below are standard items - additional colours are available but subject to special order conditions.

| Colour | TOPGAL | | TOPGAL | | SEPLUX | |
|--------------------|--------------------|------|-------------------------|------|-------------------------|------|
| | 10mm Standing Seam | | 16mm/20mm Standing Seam | | 40mm Interlocking Panel | |
| | LT (%) | SHGC | LT (%) | SHGC | LT (%) | SHGC |
| Clear | 65 | 0.6 | 49 | 0.51 | 76 | — |
| Bronze | 30 | 0.5 | 20 | 0.39 | — | — |
| Ice / Opal | 20 | 0.36 | 20 | 0.32 | 38 | — |
| Blue | 30 | 0.59 | 20 | 0.43 | — | — |
| Polys shade Silver | 12 | 0.27 | 12 | 0.26 | — | — |

- LT - Light Transmission in % according to ASTM D-1003, measured between ribs.
- SHGC - Solar Heat Gain Coefficient is the ratio of solar heat gain through the sheet and the incident solar radiation. It takes into account all conduction, convection and radiation effects involved.
- Panels have UV protection on both sides or one side, upon customer request. (Standard products in stock have UV protection one side - clearly indicated on the product).

Product Specifications

Detailed installation & accessory brochures are available in soft copy on request.

| Panel | Thickness (mm) | Width of Panel (mm) | Dead Load (kg/m ²) | Recommended Purlin Spacing (mm) ave. | R-Value | Minimum Radius for Cold Bending (m) |
|--|----------------|---------------------|--------------------------------|--------------------------------------|---------|-------------------------------------|
| TOPGAL Standing Seam 10mm  | 10 | 600 | 2.5 | 750 | 0.476 | 2.0 |
| TOPGAL Standing Seam 16mm  | 16 | 600 | 3.3 | 900 | 0.555 | 3.2 |
| TOPGAL Standing Seam 20mm  | 20 | 1000 | 3.5 | 1000 | 0.666 | 4.0 |
| SEPLUX Panel System 40mm  | 40 | 435 | 4.0 | N/A | 0.833 | 8.0 |

- Dead Load is a weight of 1m² of Topgal system, includes installation accessories
- Other thicknesses available on special request

Technical Data

| | TOPGAL | 40 ^{5PX} SEPLUX |
|---|---------------------|--------------------------|
| Linear Expansion | 0.065mm/m °C | 0.065mm/m °C |
| Service Temperature | -40°C - +120°C | -40°C - +120°C |
| Fire Resistance Rating | B-s1,d0 | Self Extinguish B-s1,d0 |
| Certification | EN-13823/EN-11925-2 | EN-14351-1/EN-13830 |
| Possible Expansion due to Heat & Moisture | 2mm - 4mm/m | 2mm - 4mm/m |

GREEN BENEFITS AND SUSTAINABILITY OF CLEARDEK MULTIWALL SYSTEMS

By Ezra Laudon - Architect

CLEARDEK Multiwall Polycarbonate systems are a perfect option for large architectural installations from swimming pool enclosures and shopping centres to office buildings or street furniture.

The many green advantages of the CLEARDEK Multiwall Polycarbonate systems, combined with light-weight and easy installation, provide an economical and sustainable option for use in all building projects.

CLEARDEK Multiwall Polycarbonate systems offer all the advantages of polycarbonate: light weight, letting in natural light, UV resistant, impact resistant, with easy installation. Being engineered as multi-skin extrusions, the profiles trap air to deliver high R values and a more energy efficient building. There is no need for metal glazing profiles and a heavy subframe.

Manufactured with a single sided or 2 sided UV coating, a building facade or roofing installation made with CLEARDEK Multiwall Polycarbonate systems is guaranteed to stand the test of time.

In roofing, sustainability is defined as:

- using less material but delivering better performance during a longer service life
- being thermally efficient / contributing to a reduction in greenhouse gasses during its useful occupied life
- being ultimately recyclable

"Green" benefits of CLEARDEK Multiwall Polycarbonate systems include:

- Excellent thermal insulation reduces the amount of electricity required to heat the building in winter, and cool it in summer.
- The use of natural daylight reduces demand for artificial lightning.
- By blocking UV rays, it provides a healthier interior for humans and furniture.
- Lightweight material does not need a heavy subframe, so uses less materials and accessories, and reduces transportation energy.
- Fully recyclable.

