Durolite®

Durolite®

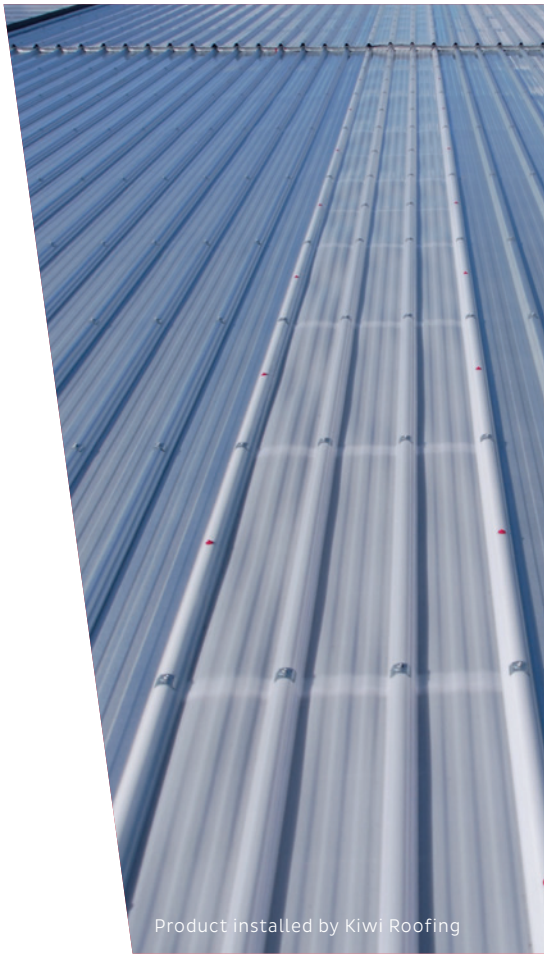
Dimond® introduced Durolite® gel coated (GC) sheeting to New Zealand expressly to combat our very harsh environments. Durolite® continues to be a preferred solution for commercial buildings throughout the country. Durolite® is recommended for commercial and retail applications where excellent long term light transmission is required.

Proven

Superior Silmar S-996 was specifically designed as a clear Gel coat for roofing. This highly UV resistant Gel coat provides Durolite® with the ultimate impenetrable barrier that reduces surface erosion and loss of light transmission to negligible proportions. Durolite has been proven on thousands of installations throughout New Zealand.

Tested

Durolite® GC has been tested at the Allunga Exposure Laboratory in Allunga QLD, a world renowned testing facility. The Durolite® GC result was a light loss of 22% over a period equivalent to 20 years exposure. The test samples still displayed a very smooth, glossy surface with no fibre show.



Product installed by Kiwi Roofing

- Surface erosion (fibre show) is eliminated
- Superior resistance to yellowing and hazing
- Minimal loss of light transmission over life
- 99% protection from UV rays
- More cost effective over the life of the building
- Premium grade glass reinforced gel coated polyester
- 25 year warranty under conditions

0800 DIMOND
dimond.co.nz

Dimond Roofing®

Durolite® has excellent stability

Materials Expansion Comparison. 0ºC to 40ºC temperature variation. Sheet length 12 metres.				
	Fibreglass	Polycarbonate	Steel	Aluminium
Thermal expansion	14.4 mm	32.4 mm	5.8 mm	11.5 mm
Thermal co-efficient	3.0 x 10^{-5} cm/cm ºC	6.75 x 10 cm/cm ºC	1.2 x 10^{-5} cm/cm ºC	2.4 x 10^{-5} cm/cm ºC

Internal purlin span for 1.5 kPa U.L.S (mm)

Series	1.1mm (1800 g/m²)	1.4mm (2400 g/m²)	1.7mm (3050 g/m²)
Corrugate	1000	1200	1300
LT7	1400	1700	1800
Brownbuilt 900	1400	1700	1900
Styleline/Veedek	1200	1500	1700
DP955	1000	1300	1600
Dimondek 400	1200	1400	N/A

U.L.S = Ultimate limit state capacity

Physical Properties

Tensile strength	80 MPa (Min. requirement 50 MPa)	Thermal expansion	3.0 x 10^{-5} cm/ºC
Impact strength	8 Joules	Thermal conductivity	158 watt/mºC
Shear strength	90 MPa	Water absorption	.2% in 24 hours/26ºC
Modulus of elasticity	5500 MPa	Curved roof radius - Corrugated & Styleline	
Compressive strength	135 MPa	1.4mm(2400 g/m²) minimum radius: 4.0 metres	
Flexural strength	150 MPa	Recommended service temperature: range -20ºC to + 95ºC	
Specific gravity	1.45		

Light series 1800 (1.1mm)

Colour	Light Transmission (typical)	Opal	60%
Clear	80%	Grey	33%

Specification

Durolite® reinforced polyester with 100 micron thick gel coat as manufactured to comply with AS/NZ 4256 parts 1 & 3: 1994. The weight of the sheet shall be *.....mm/gsm and be manufactured to conform with the nominated profile and colour. Sheeting shall be installed in accordance with Durolite® fixing instructions and comply with the design loading requirements of NZ4703-1992 and NZ3604-1990. *Insert actual sheet weights required.

Our supplier for Durolite® is a Quality Endorsed Company complying with AS/NZS ISO 9000-2000, Licence SMKB20116.

Installation

1. Pre-drill oversize fixing holes to allow for expansion and contraction of sheet.
2. Apply the Durolite purlin protection strip between the safety mesh and Fiberglass sheet at each purlin.
3. For endlaps, apply a self adhesive closed cell foam strip directly over the purlin between the overlapping sheets.
4. Store sheets in a dry and fire safe area. Do not store heavy materials on sheets as they may fracture.
5. Pan fixing is recommended for cladding. Fixing shall occur in every pan at ends and every other at intermediate.

Durolite® sheeting matching clip-fixed deck profiles should be side lapped with overlaps on both sides. Refer to Dimond's website for more fixing information.

Important: Durolite® sheeting is installed by pre-drilling over size holes to allow for expansion and contraction. The basic calculation shall be 0.75mm per lineal metre, plus the shank diameter of the fastener. Example: 10 mt sheet - 10 x 0.75 + 4mm (fastener) = 11.5mm per drilled hole.

Note: All installation should comply with the design loading requirements of NZ4203-1992 and NZ3604-1990.

June 2018

0800 DIMOND
dimond.co.nz

Dimond Roofing

V03.00.0818