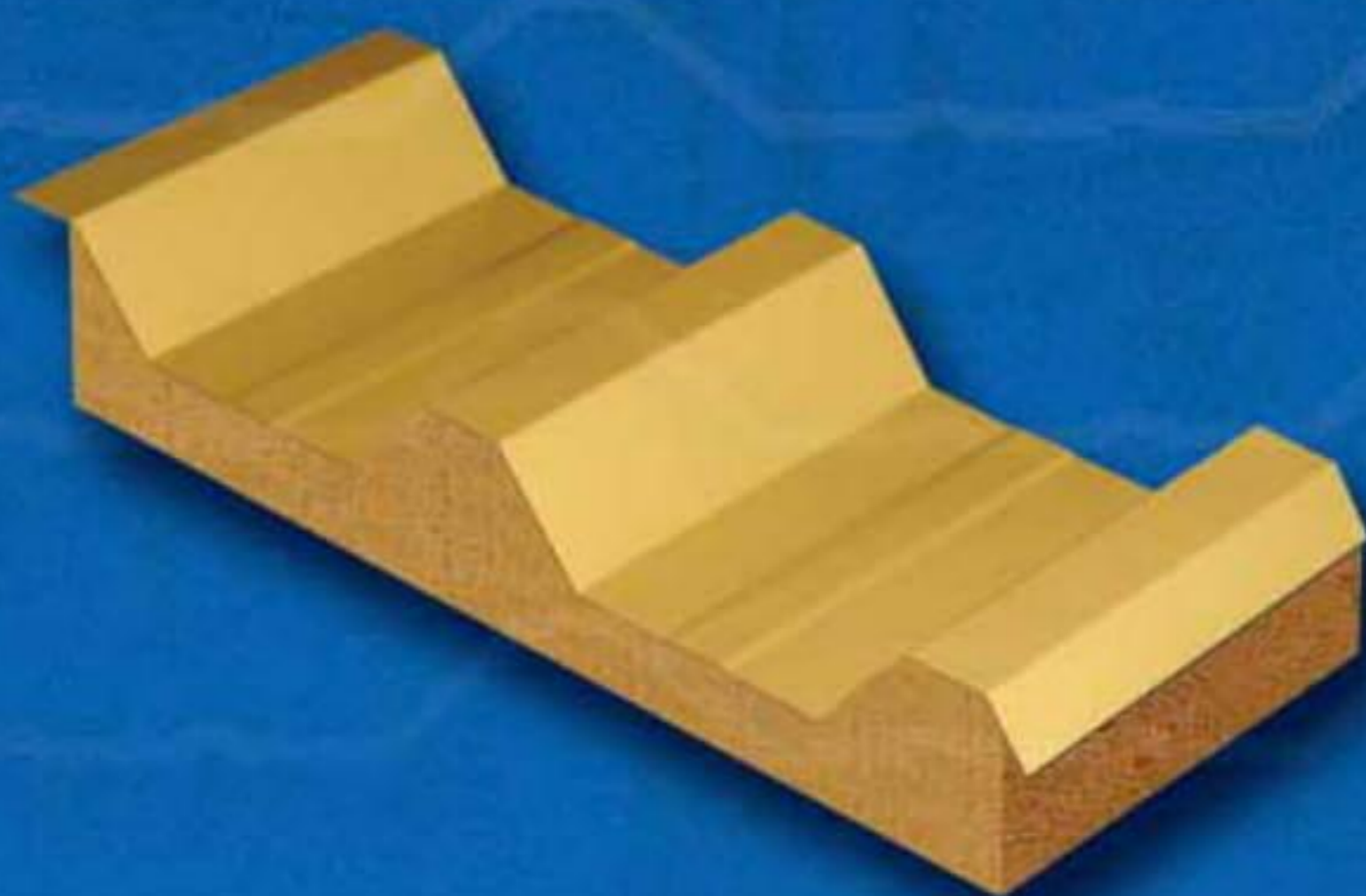
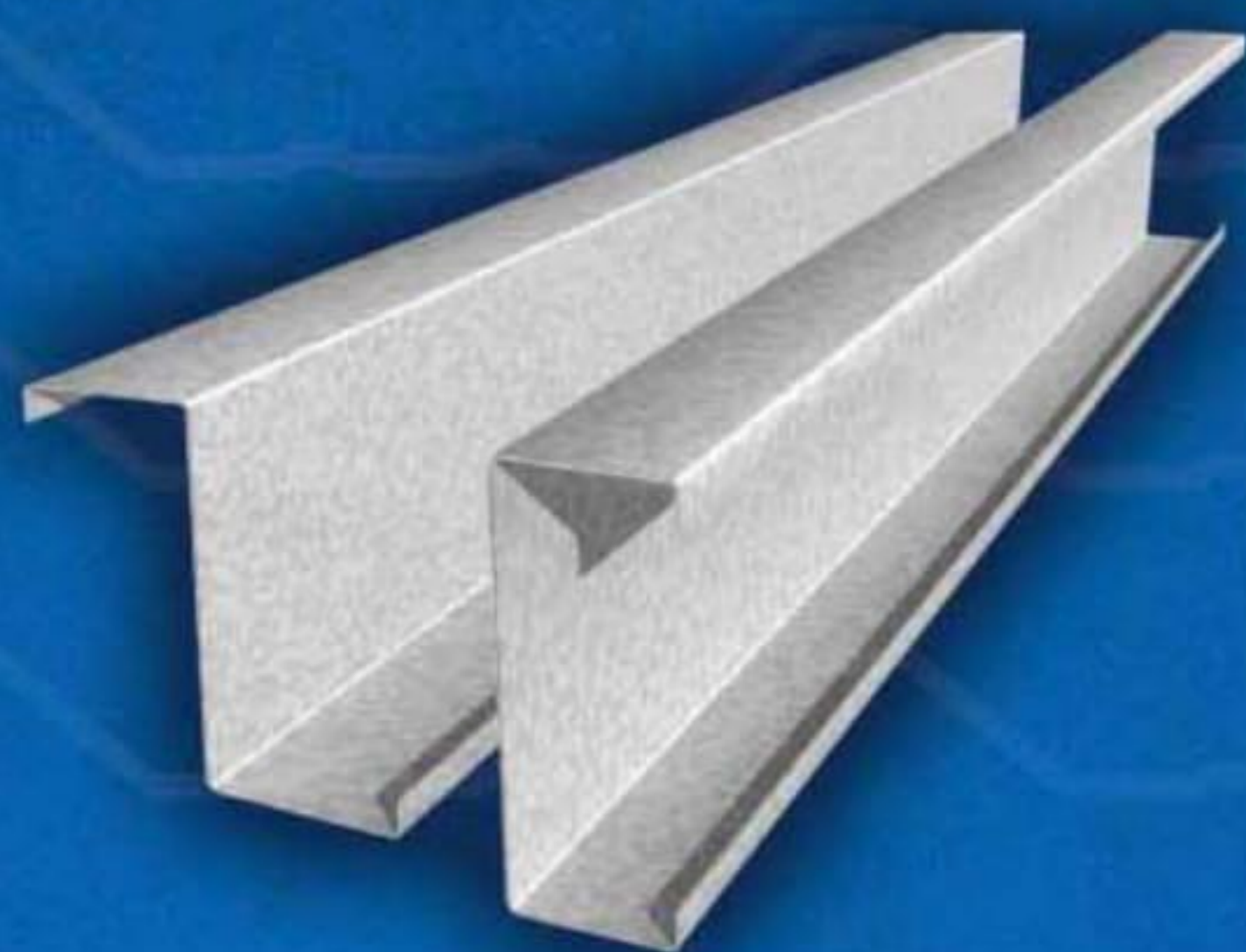
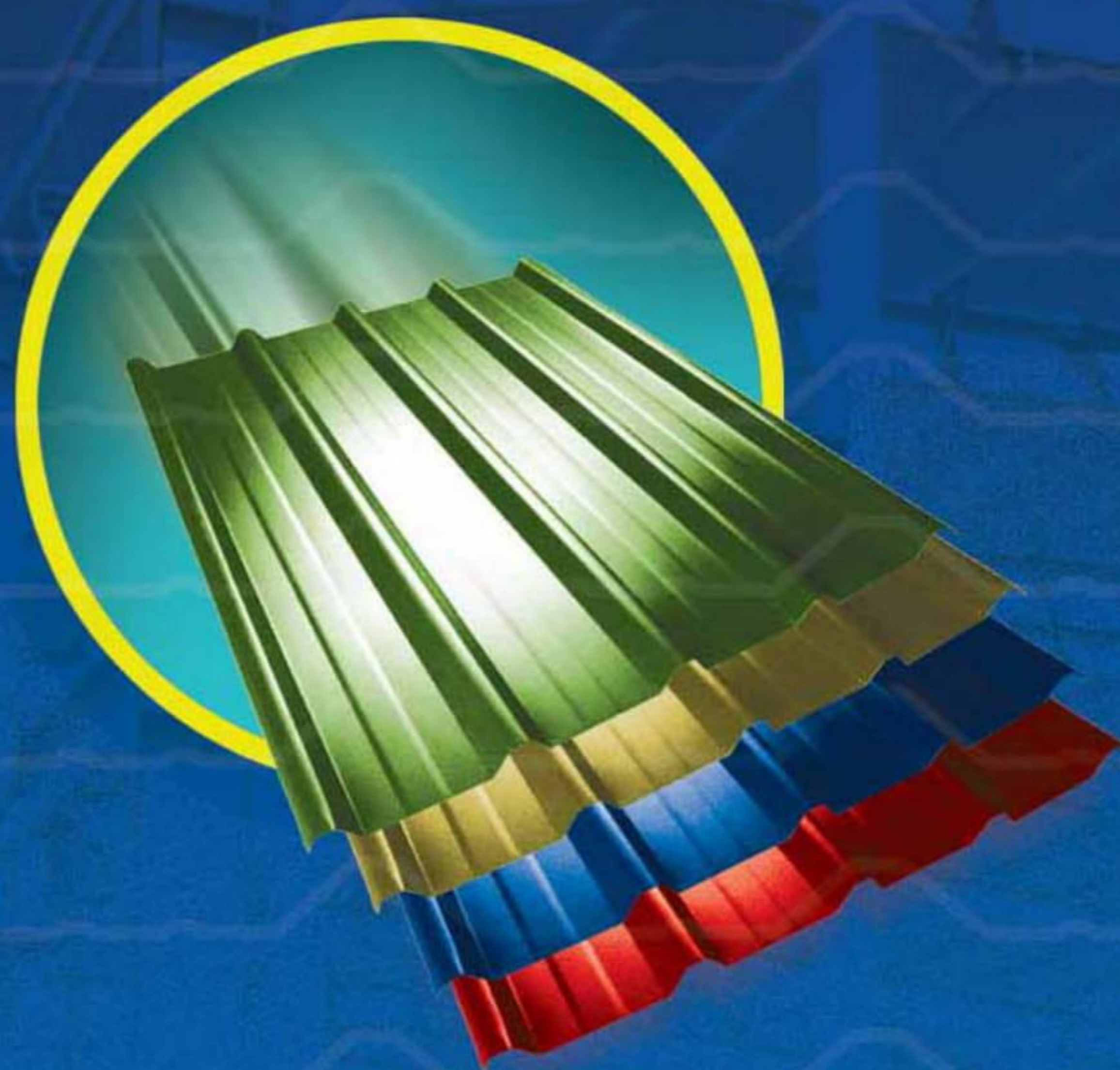


RALICO

PROFILES FZC



RALCO PROFILE FZC

We are one of the fast growing industrial and commercial insulated/ uninsulated panels, Z & C Purlin manufacturer in U.A.E our parent company, Ralco Industries FZC a well established design, fabricator of hot rolled and pre engineered steel buildings. Our well-qualified professionals is committed to quality products at competitive prices, personal and efficient service, plus an ability to customize products for any application. Our production facilities are established in Hamriyah Free Zone, Sharjah in an area of 200,000 sq.ft

Skilled in all facets of panel manufacturing with more than two decades of industry experience, the RALCO team is able to provide technical advice and assistance in selecting the right product for your project or application. That experience, combined with in-house computer-aided design and development facilities, results in advanced technology being integrated into every panel order.

RALCO panels have proven to be one of the most cost efficient, flexible and reliable building materials currently available. Our innovative manufacturing techniques allow panels to be constructed to any dimension. Our stringent quality control tests ensure maximum long-life durability.

Tough, reliable and guaranteed

High quality, lightweight and easy to install

Environmentally friendly.

Innovative manufacturing allows panels to be constructed to fit any dimension

Delivery is on time and on budget

Quality Control, advanced design resources, unparalleled customer service, and the ability to meet even the shortest delivery deadline means that RALCO Profiles FZC, is the best choice for your next project.

SPECIFICATION SHEET FOR CORRUGATED ALUMINIUM

- **ALLOY**

Alluminium alloy, used in the production of profiled roof and wall cladding panels, is A-3105-H16 for mill finish and H46 for pre-painted

- **MATERIAL PROPERTIES**

Yield strength - Min 140 Mpa

Modules of elasticity - 69000 mpa

Coef. of linear thermal expansion - 24×10^{-6} per deg. C

- **DURABILITY**

When exposed to the atmosphere natural aluminium forms a thin layer protective oxide coating on this surface. Thanks to this composition, the roofing element is adequately protected against corrosion under normal conditions of exposure to atmospheric conditions, especially in coastal and industrial area.

- **FIRE**

Aluminium is classified as a non- combustible material, defined by BS 476: part 4: 1970. Roof coverings of aluminium alloy are rated EXT AA when tested in accordance with BS 476:part3: 1958

- **COMBINING WITH OTHER MATERIAL**

These roof coverings can come into direct contact with plastics, galvanized steel, high-grade and pre-painted steel and zinc sheets.

Direct contact with ordinary steel, copper, brass and lead should be avoided by introducing a continuous separating element such as a PVC tape of bitumen felt strips or alternatively, painted with zinc chromate or aluminium paint. This also applies to direct contact with mortar and concrete.

Timber parts which come into contact with aluminium should be treated with impregnating agents which do not contain copper salts, mercury salts, phenol compounds or fluorine compounds.

- **MILL FINISH**

This is the natural untreated surface of the metal as it leaves the mill.

- **STUCCO EMBOSSED**

Stucco-embossed aluminium is mill finished aluminium. This is roller-embossed to produce an irregular raised pattern finish. The advantage of embossing is that direct reflections and sun glaze are diffused, without reduction in the total reflectivity.

- **POLYESTER COLOUR - COATED**

An economical, long- life coated, factory applied polyester on the exposed side, and a lacquer coating on the reverse side. This is available in RAL as well as BS colour shades. External side coated in 20-25 microns polyester and Internal side coated in 5-7 microns primer

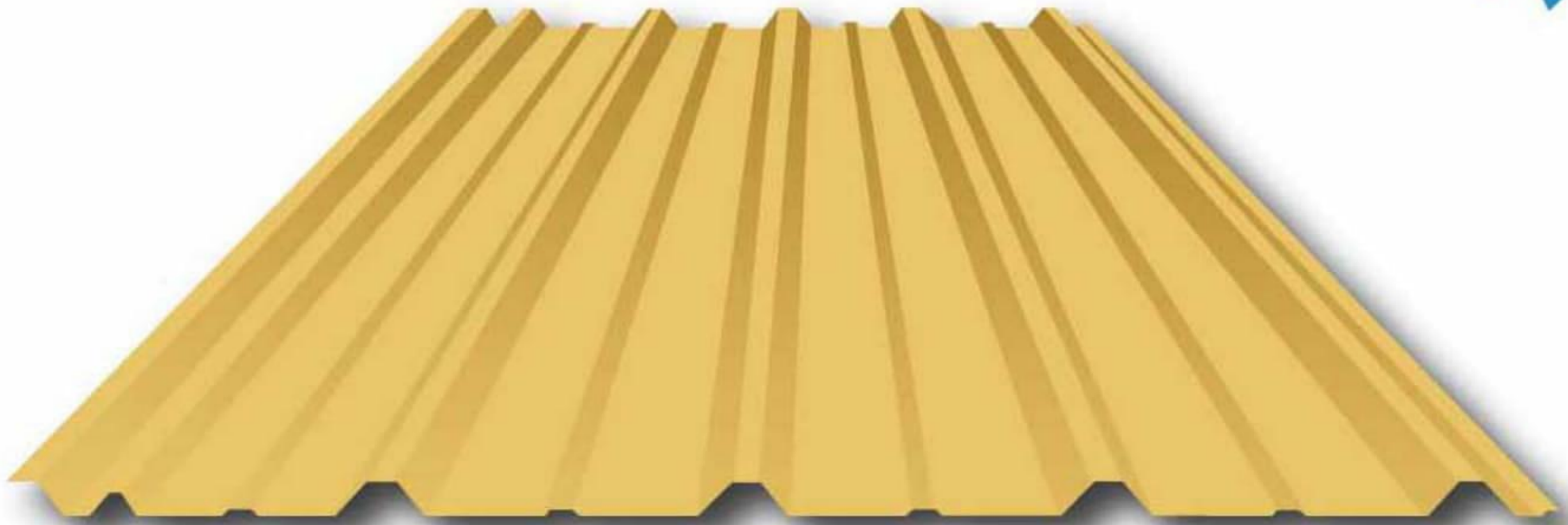
- **PVF2 COLOUR-COATED**

Excellent U.V. resistant , long-life coating of 2 coats of factory applied PVF2 on the exposed side and a lacquer coating on the reverse side. Available in RAL as well as BS colour shades.

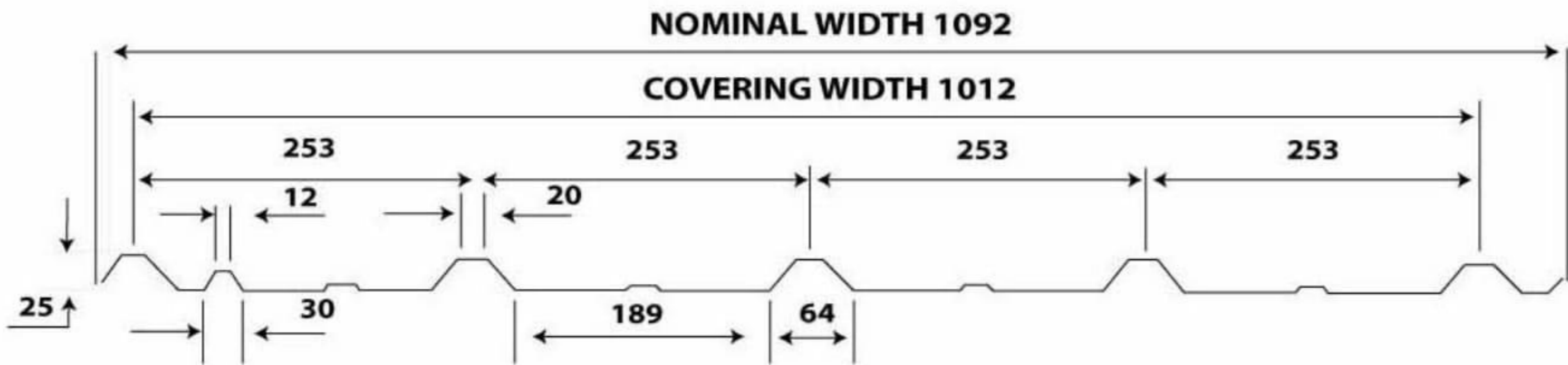
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ALUMINIUM PRODUCT

DOUBLE LAP LEAKPROOF PROFILE



RALCO 25/253 SHEETING



USAGE: ROOF AND WALL CLADDING
ALLOWABLE WORKING LOADS (N/m²)

THICKNESS (mm)	0.5		0.6		0.7		0.8		0.9	
MI (mm ⁴ /m)	37959		45082		52053		58876		65553	
WEIGHT (kg/m ²)	1.632		1.959		2.285		2.612		2.938	
Z _x TOP (mm ³ /m)	1895		2253		2605		2950		3289	
Z _x BOTT (mm ³ /m)	7644		9031		10373		11671		12927	
SPAN (mm)	S	M	S	M	S	M	S	M	S	M
1000	839	1049	998	1247	1154	1442	1307	1633	1457	1821
1250	522	671	620	798	716	923	810	1045	902	1165
1500	302	466	359	554	415	641	469	726	522	809
1750	190	305	226	362	261	418	295	472	329	526
2000	128	204	151	242	175	280	198	317	220	352

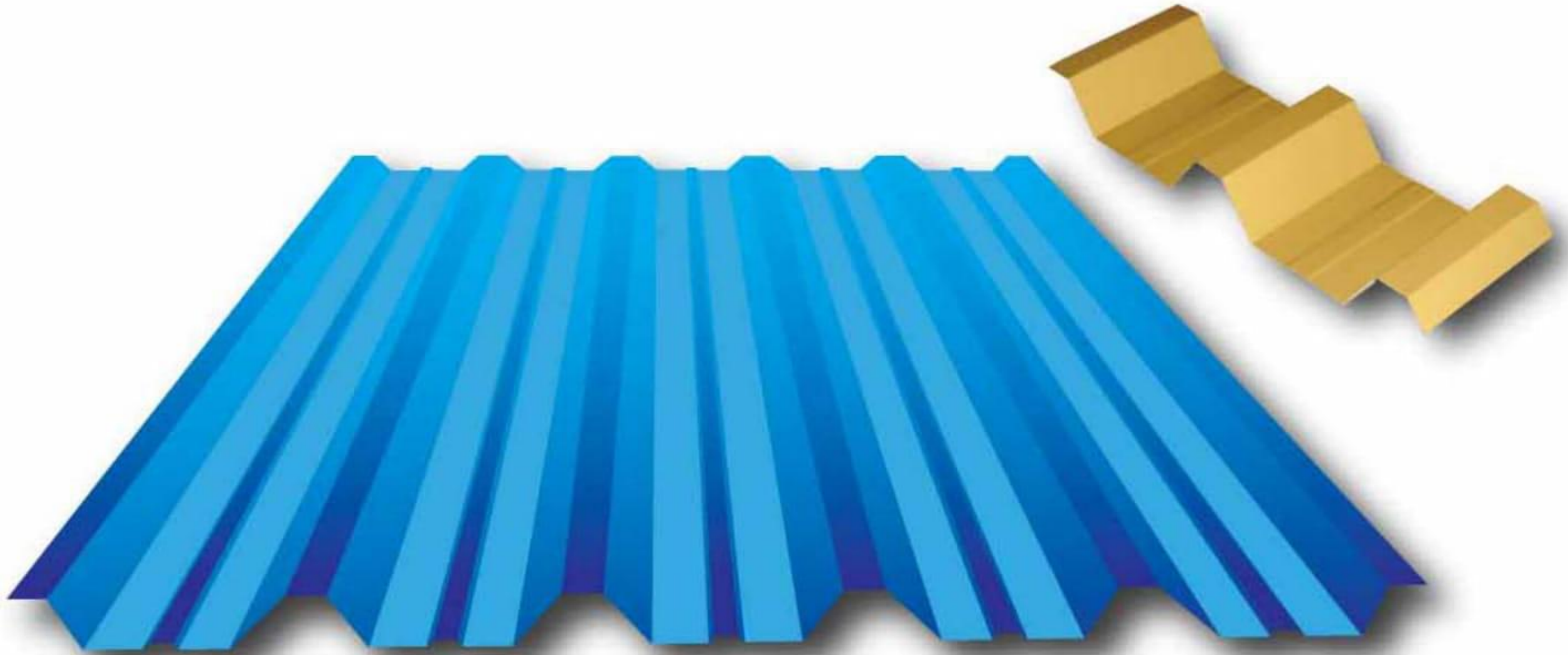
S=SINGLE SPAN
M=MULTISPAN

DEFLECTION: L/200

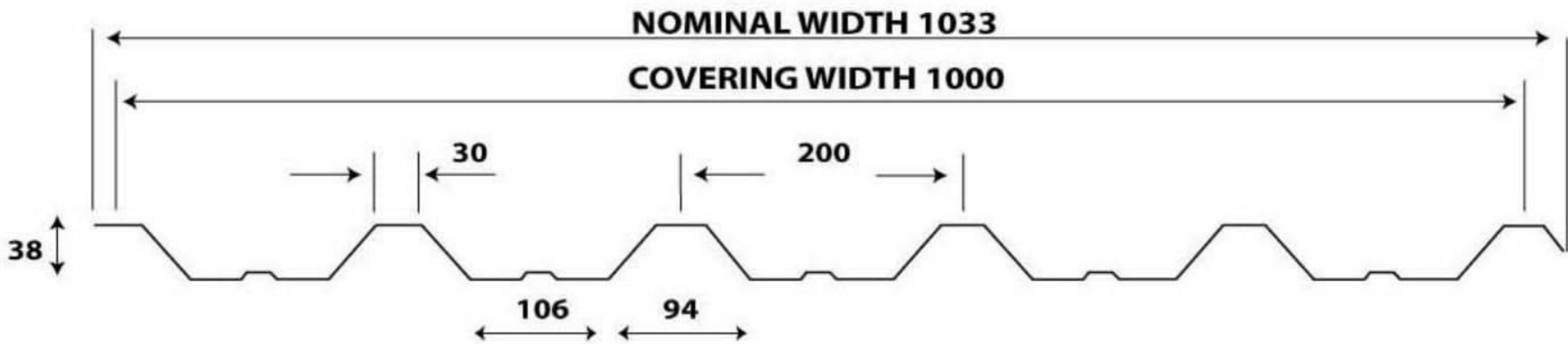
CAN PRODUCE ANY LENGTH UPTO 16 METER WITH WIDTH OF 1.012 METER

ALUMINIUM PRODUCT

AESTHETICALLY PLEASING APPEARANCE



RALCO 38/200 SHEETING



USAGE: ROOF AND WALL CLADDING
ALLOWABLE WORKING LOADS (N/m²)

THICKNESS (mm)	0.5		0.6		0.7		0.8		0.9		1.0		1.2	
MI (mm ⁴ /m)	125981		150116		173906		197353		220460		243231		287776	
WEIGHT (kg/m ²)	1.645		1.974		2.303		2.633		2.962		3.291		3.949	
ZxTOP (mm ³ /m)	5024		5989		6941		7881		8808		9723		11514	
ZxBOTT (mm ³ /m)	9748		11605		13432		15229		16996		18735		22124	
SPAN (mm)	S	M	S	M	S	M	S	M	S	M	S	M	S	M
1000	2225	2781	2653	3316	3074	3843	3491	4363	3901	4876	4306	5383	5100	6375
1250	1424	1780	1698	2122	1968	2460	2234	2792	2497	3121	2756	3445	3264	4080
1500	989	1236	1179	1474	1366	1708	1551	1939	1734	2167	1914	2392	2267	2933
1750	632	908	753	1083	872	1255	990	1425	1106	1592	1758	1220	1443	2082
2000	423	677	504	807	584	935	663	1061	741	1185	1308	817	967	1547

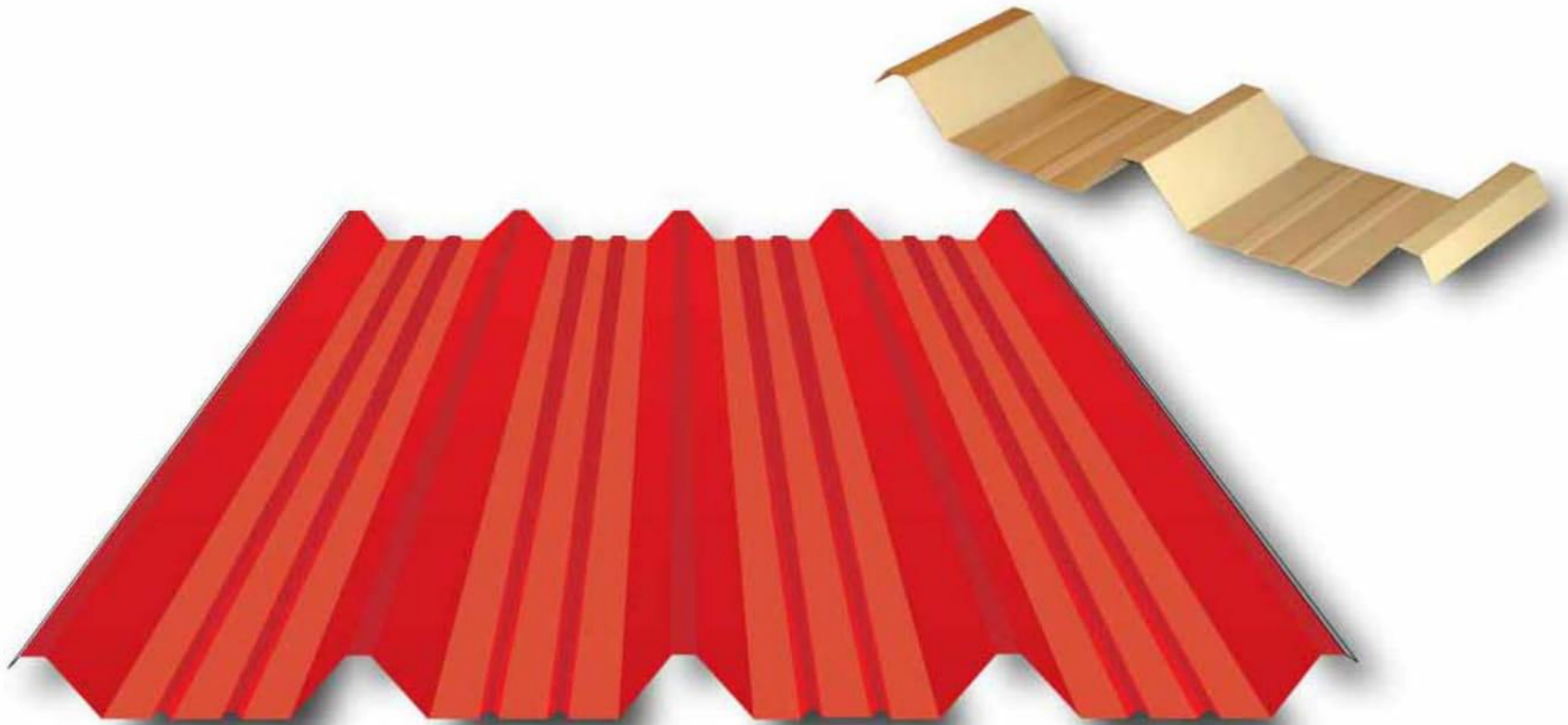
S=SINGLE SPAN
M=MULTISPAN

DEFLECTION: L/200

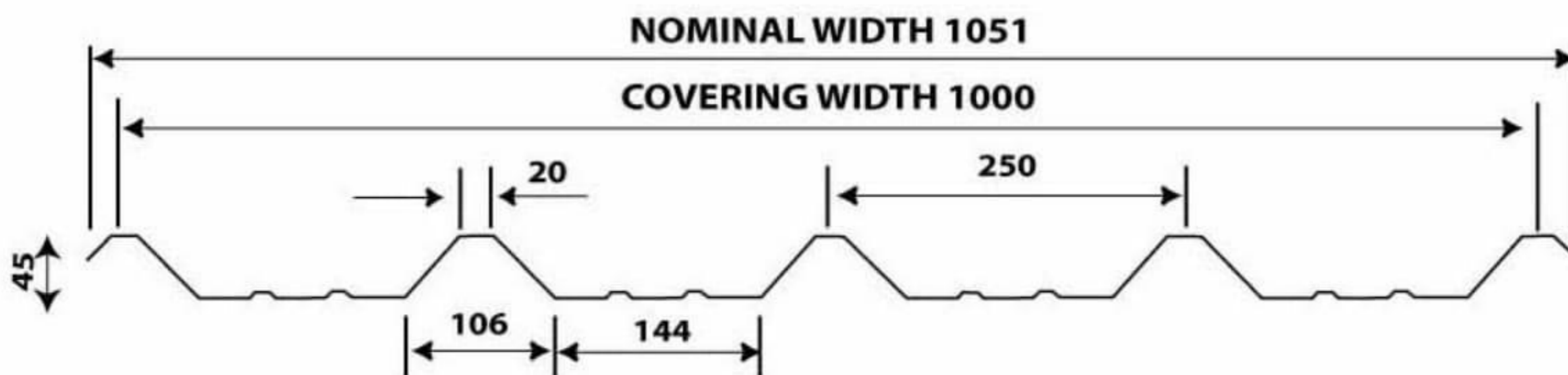
CAN PRODUCE ANY LENGTH UPTO 16 METER WITH WIDTH OF 1,000 METER

ALUMINIUM PRODUCT

EXCEPTIONAL SPANNING CAPABILITY PROFILE



RALCO 45/250 SHEETING



USAGE: ROOF AND WALL CLADDING
ALLOWABLE WORKING LOADS (N/m²)

THICKNESS (mm)	0.5		0.6		0.7		0.8		0.9		1.0		1.2	
MI (mm ⁴ /m)	151122		180232		208977		237361		265386		293056		347340	
WEIGHT (kg/m ²)	1.645		1.974		2.303		2.633		2.962		3.291		3.949	
ZxTOP (mm ³ /m)	4742		5659		6565		7460		8346		9221		10940	
ZxBOTT (mm ³ /m)	11506		13705		15871		18004		20105		22173		26213	
SPAN (mm)	S	M	S	M	S	M	S	M	S	M	S	M	S	M
1000	2100	2626	2506	3133	2908	3634	3304	4130	3696	4620	4084	5105	4845	6057
1250	1344	1680	1604	2005	1861	2326	2115	2643	2366	2957	2614	3267	3101	3876
1500	934	1167	1114	1392	1292	1615	1469	1836	1643	2054	1815	2269	2154	2692
1750	686	857	818	1023	949	1187	1079	1349	1207	1509	1333	1667	1582	1978
2000	508	656	606	783	702	909	798	1033	892	1155	985	1276	1167	1514

S=SINGLE SPAN
M=MULTISPAN

DEFLECTION: L/200

CAN PRODUCE ANY LENGTH UPTO 16 METER WITH WIDTH OF 1.000 METER

SPECIFICATION SHEET FOR CORRUGATED STEEL

- **ALLOY**

The base material shall conform to ASTM-A653 (Lock Forming Quality) or structural quality ASTM-A446 Grade D (Yield strength of 345 Mpa) subject to availability.

- **FINISHES**

The base steel material shall be hot dipped galvanized Zinc coated thickness as per ASTM A525-G90 (Zinc coated 275/m² total both sides) subject to availability.

- **AL-Zn COATED**

The base material shall be coated in AZ150 (150/m² of Aluminium Zinc Coated) confirming to ASTM A792 Grade 50B with minimum yield strength 345Mpa. This Coating offers corrosion resistance.

- **PAINT FINISHES**

(Applies for galvanized as well as Alu-Zinc)

- **POLYESTER**

An economical long life coating. External side coated in 20-25 microns polyester and internal side coated in 5-7 microns primer.

- **PVF2**

This coating has high resistance to fading due to excellent UV resistance. Available in BS and RAL colour shades.

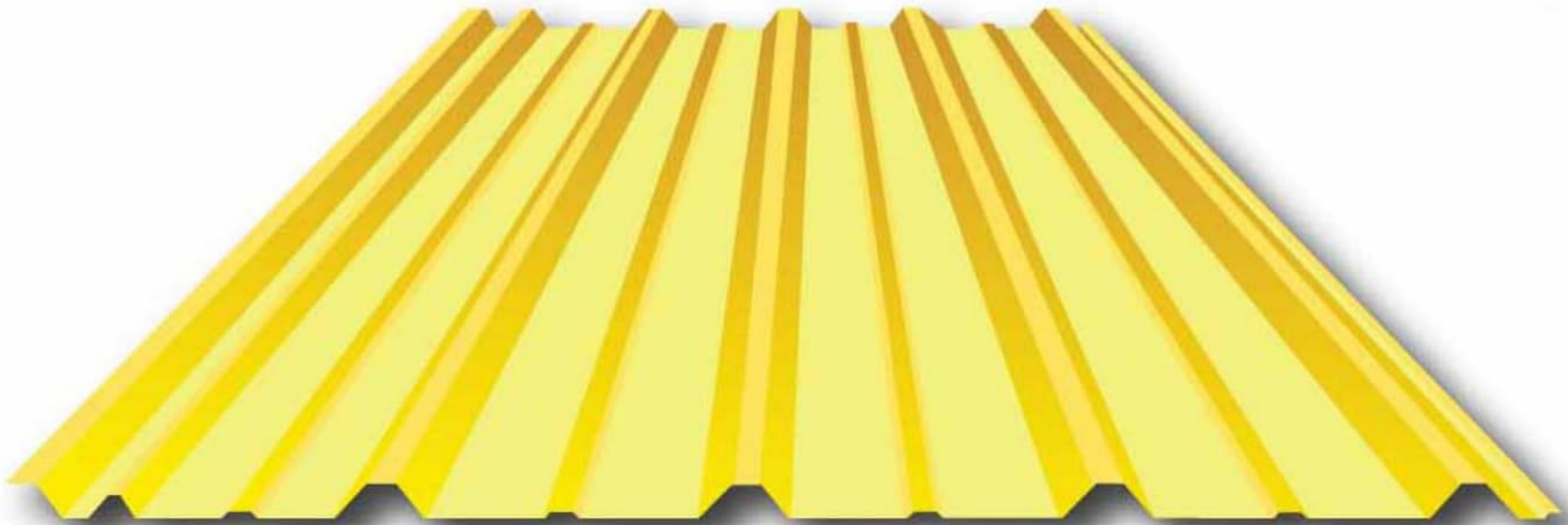
- **PVC PLASTISOL**

This coating has an excellent resistance to flaking and has good anti-fading properties. This coating is used in a thickness of 200 microns

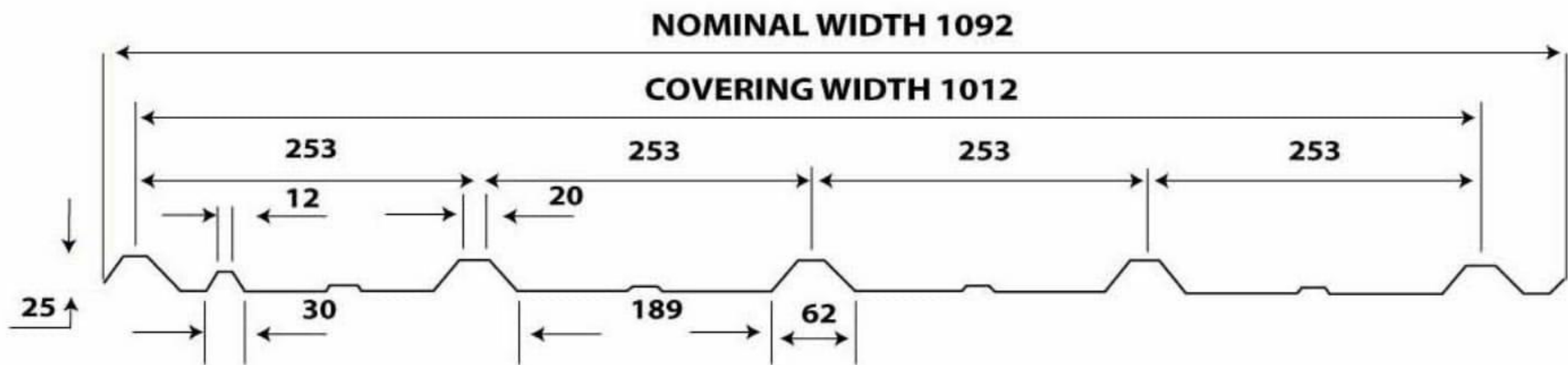
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DOUBLE LAP LEAKPROOF PROFILE



RALCO 25/253 SHEETING



USAGE: ROOF AND WALL CLADDING
ALLOWABLE WORKING LOADS (N/m²)

THICKNESS (mm)	0.40		0.46		0.50		0.60		0.70		0.90	
MI (mm ⁴ /m)	30683		35067		37959		45082		52053		65553	
WEIGHT (kg/m ²)	3.797		4.366		4.746		5.695		6.645		8.543	
ZxTOP (mm ³ /m)	1530		1749		1895		2253		2605		3289	
ZxBOTT (mm ³ /m)	6212		7077		7644		9031		10373		12927	
SPAN (mm)	S	M	S	M	S	M	S	M	S	M	S	M
1000	1461	1826	1671	2088	1809	2262	2152	2690	2488	3110	3141	3927
1250	935	1169	1069	1337	1158	1448	1377	1721	1592	1990	2010	2513
1500	649	812	743	928	804	1005	956	1106	1106	1396	1396	1745
1750	462	596	528	682	571	739	678	783	783	1015	986	1282
2000	309	456	353	522	383	565	454	525	525	777	661	982

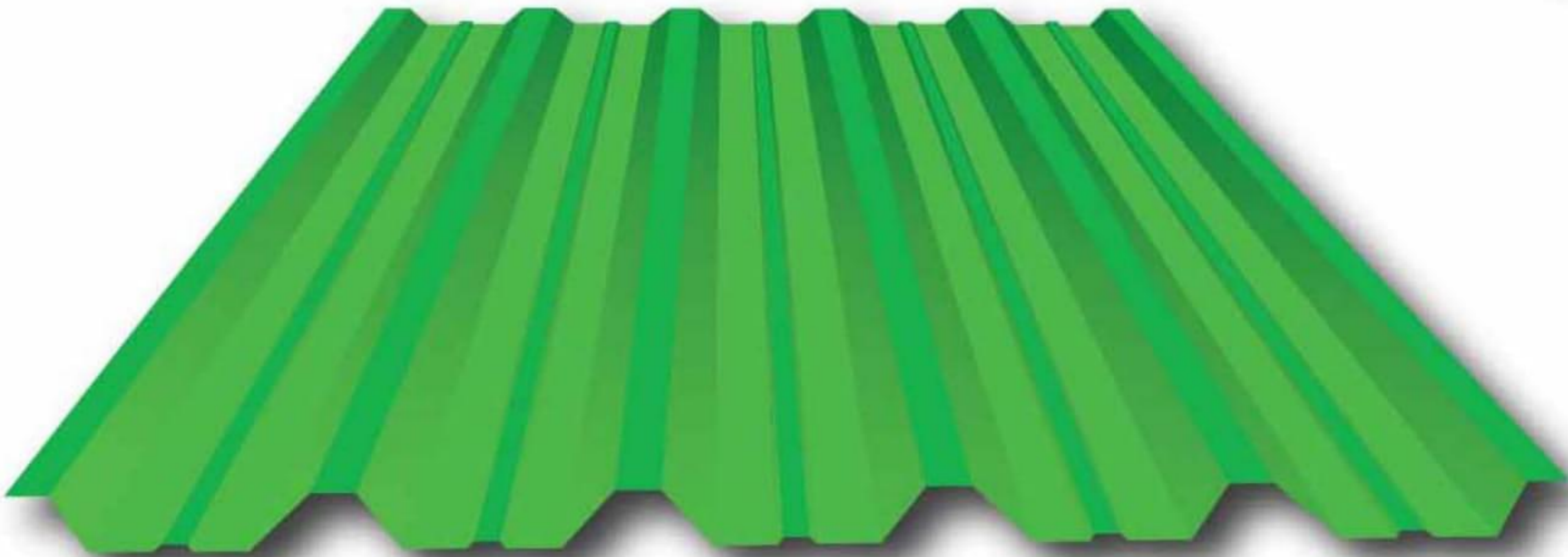
S=SINGLE SPAN
M=MULTISPAN

DEFLECTION: L/200

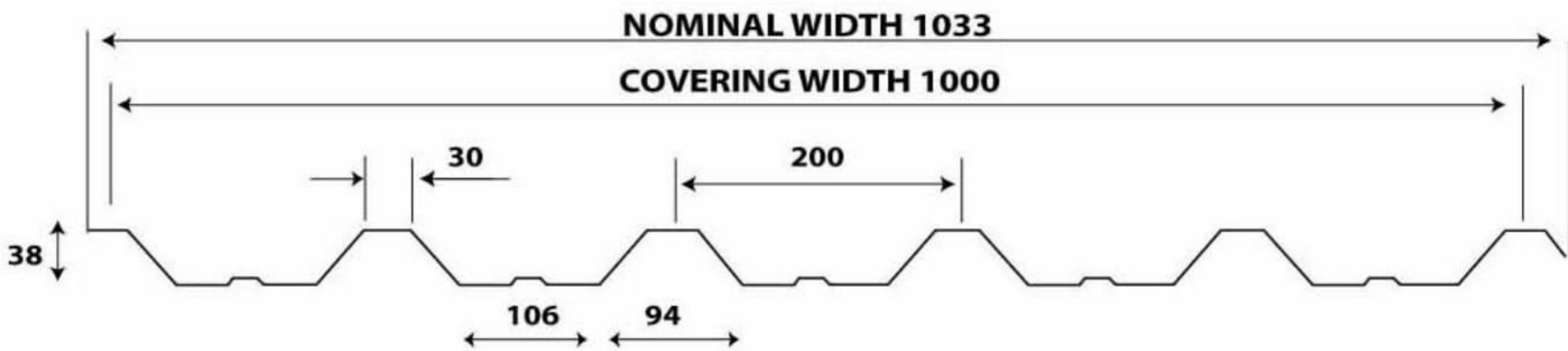
CAN PRODUCE ANY LENGTH UPTO 16 METER WITH WIDTH OF 1,012 METER



AESTHETICALLY PLEASING APPEARANCE



RALCO 38/200 SHEETING



USAGE: DECKING, ROOF AND WALL CLADDING
 ALLOWABLE WORKING LOADS (N/m²)

THICKNESS (mm)	0.40		0.46		0.5		0.7		0.8		0.9	
MI (mm ⁴ /m)	101496		116229		125981		150116		173906		220460	
WEIGHT (kg/m ²)	3.827		4.401		4.784		5.741		6.698		8,612	
Z _x TOP (mm ³ /m)	4045		4634		5024		5989		6941		8808	
Z _x BOTT (mm ³ /m)	7861		8997		9748		11605		13432		16996	
SPAN (mm)	S	M	S	M	S	M	S	M	S	M	S	M
1000	3863	4829	4426	5532	4798	5997	5720	7150	6629	8287	8412	10515
1250	2473	3091	2832	3540	3071	3838	3661	4576	4243	5303	5384	6730
1500	1717	2146	1967	2459	2132	2665	2542	3178	2946	3483	3739	4673
1750	1262	1577	1445	1806	1567	1958	1868	2335	2165	2706	2747	3433
2000	966	1207	1106	1383	1199	1499	1430	1787	1657	2072	2103	2629

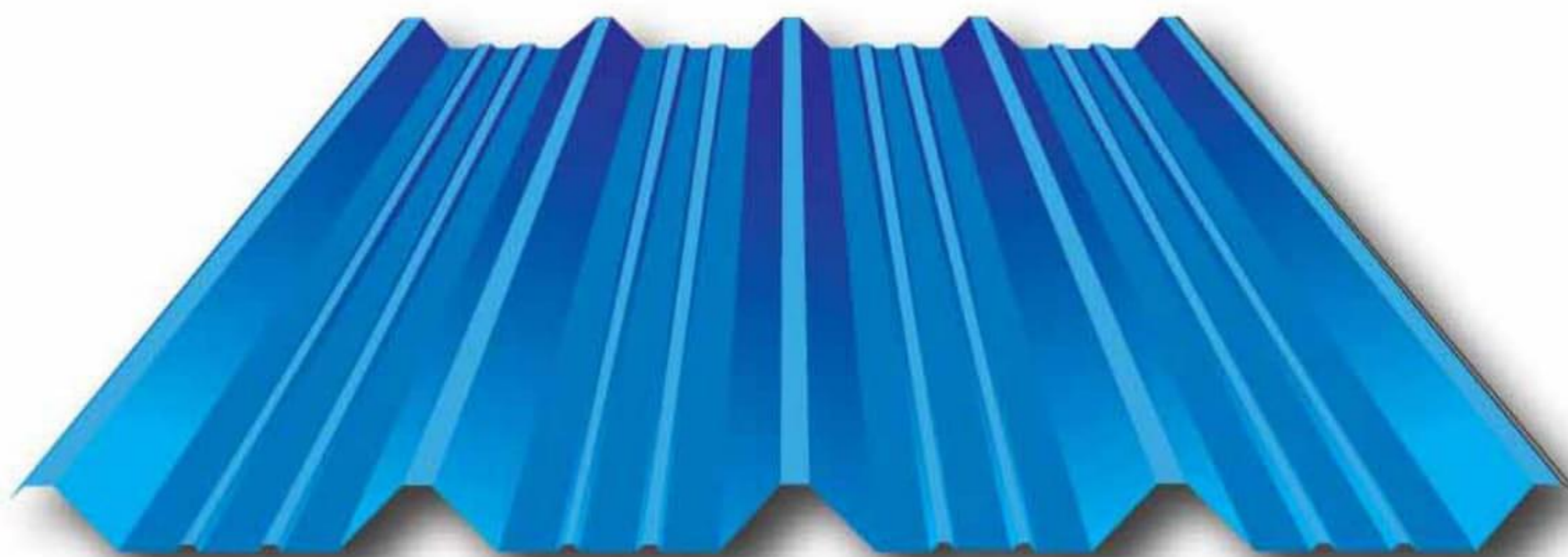
S=SINGLE SPAN
 M=MULTISPAN

DEFLECTION: L/200

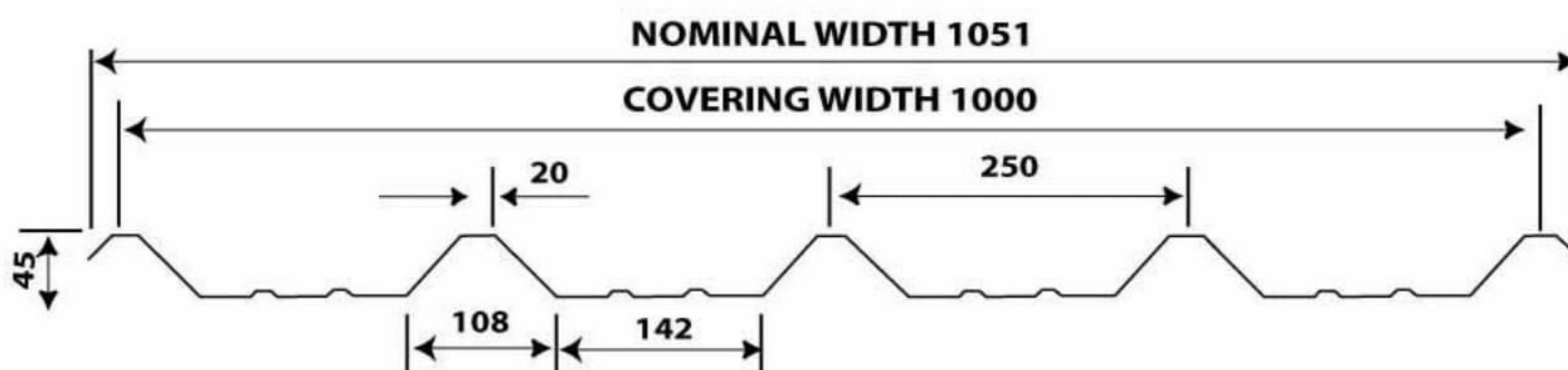
CAN PRODUCE ANY LENGTH UPTO 16 METER WITH WIDTH OF 1.000 METER



EXCEPTIONAL SPANNING CAPABILITY PROFILE



RALCO 45/250 SHEETING



USAGE: ROOF AND WALL CLADDING
ALLOWABLE WORKING LOADS (N/m²)

THICKNESS (mm)	0.40		0.46		0.50		0.60		0.70		0.90	
MI (mm ⁴ /m)	121645		139376		151122		180232		208977		265386	
WEIGHT (kg/m ²)	3.827		4.401		4.784		5.741		6.698		8.612	
Z _x TOP (mm ³ /m)	3815		4373		4742		5659		6565		8346	
Z _x BOTT (mm ³ /m)	9273		10617		11506		13705		15871		20105	
SPAN (mm)	S	M	S	M	S	M	S	M	S	M	S	M
1000	3644	4555	4176	5220	4529	5661	5404	6755	6270	7837	7970	9963
1250	2332	2915	2673	3341	2899	3623	3459	4323	4012	5016	5101	6376
1500	1619	2024	1856	2320	2013	2516	2402	3002	2786	3483	3542	4428
1750	1190	1487	1364	1705	1479	1849	1765	2206	2047	2559	2602	3253
2000	911	1139	1044	1305	1132	1415	1351	1689	1567	1959	1993	2491

S=SINGLE SPAN
M=MULTISPAN

DEFLECTION: L/200

CAN PRODUCE ANY LENGTH UPTO 16 METER WITH WIDTH OF 1.000 METER

HIGHLIGHTS FOR COMPOSITE PANELS

- **Composite Panels are produced using rigid Polyurathane/ Polyisocyanate with extranal and internal sheets in steel or aluminium of various thickness, coatings and colours**

- **OUTSTANDING INSULATING PROPERTIES**

Low thermal conductivity due to chemical structure of polyurethane/ PIR

- **LOW DEAD LOAD**

Due to the combination of lightweight materials.

- **CAPABLE OF LONG SPANS**

Fully bonded panels allow even longer spans

- **PAINTED MATERIAL**

Available in a wide range of standard colours.

Extensive choice of RAL Colourcoat finishes and colours.

- **SIMPLE AND FAST ERECTION**

Factory injected panel (no assembling on site)

Easy handling due to low weight.

- **MANUFACTURED IN THE UAE**

Precise production, accuracy and control.

Considerable savings in transportation costs.

- **THERMAL INSULATION**

Effective protection of the thermal insulation against interstitial condensation.

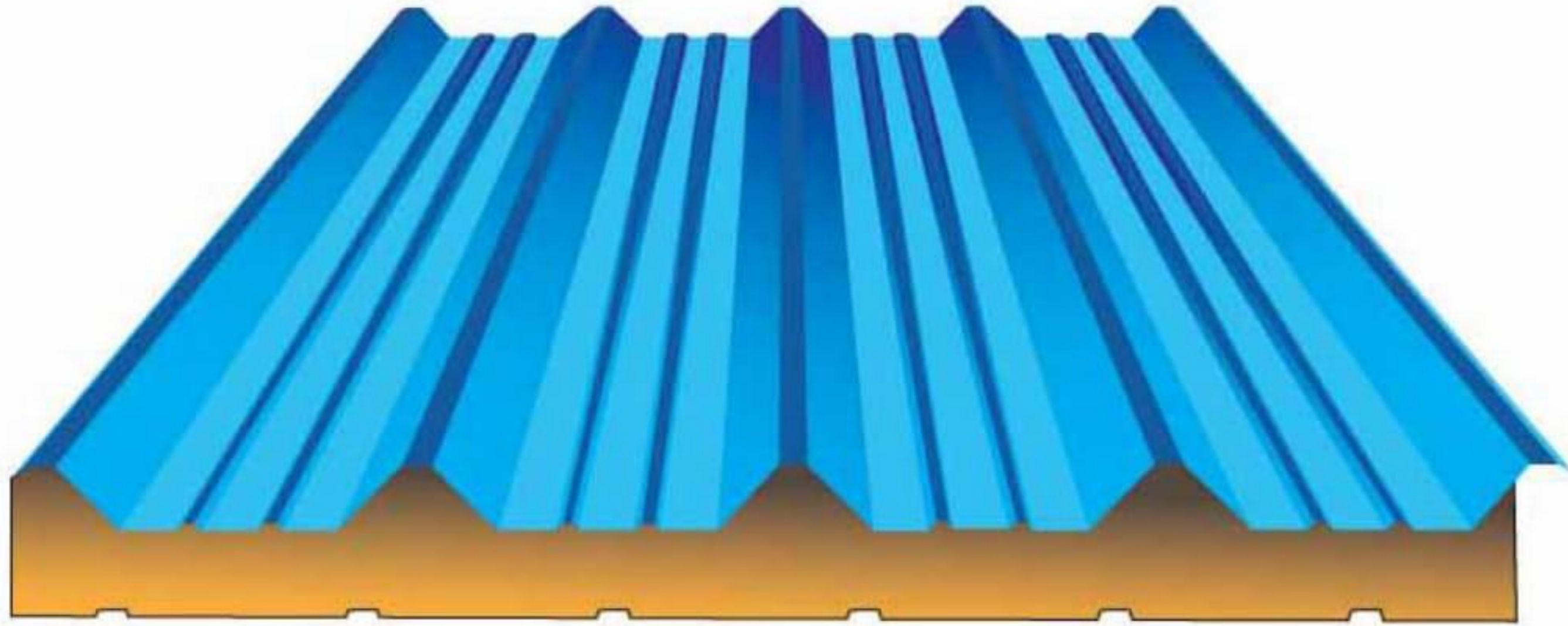
Thermal insulation efficiency of economically unmatched standards 25 mm to 150 mm depths

- **MATERIAL DELIVERY**

Dependable delivery dates - Due to speed of manufacture and delivery procedure

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INSULATED COMPOSITE PANEL



GENERAL FEATURE

a. MECHANICAL CHARACTERISTICS OF THE FOAM

(At a density of 35 - 37 kg/m³)

- Maximum tensile stress : kg - 4.00/cm²
- Compression resistance : Kg - 2.00/cm²
- Shear resistance: kg - 1.40/ cm²
- Fame Speard Index : 25 & 20
- Smoke Develop rate: 450

b.INSULATION CAPACITY

-Between 0.020 to 0.022 Kcal/mh °C as a K value,

The U-value for 35, 50 & 100mm thick insulated panel, is as follows:

- For 35 mm = 0.57 W/m² °C
- For 50 mm = 0.4 W/m² °C
- For 100mm = 0.2 W/m² °C

c.Water absorption of the foam

-After 24 hours : 1.0 % of volume

d.Close cells

-93%

e.Self extinguishing type

-As per ASTM D 169/68 norms

Insulated Composite Panel

Insulation values and related calculations:

polyurethane foams are today used world wide as insulation against temperature extremes. In the middle east the building industry has adapted polyurethane insulation as one of the best materials to control the interior climate and save energy. To be able to determine the "amount" of insulation required for a certain construction, following definitions and formulas can be used:

"Q" -- value:

the amount of heat (q) passing through a homogenous construction with

A = surface area of the construction (m²)

L = thickness of the construction (m)

T = difference in the temperature on the two faces of the construction (°C)

λ = thermal conductivity of the construction (w/m °C)

$$Q = \lambda \frac{A \Delta T}{L} \quad (W)$$

Lamda - values:

the thermal conductivity (λ) of a material is the amount

Of heat in watts passing through a material having a surface of 1 m² and

Thickness 1 m in order to alter the temperature 1°C, hence a low lamda

Values indicates that the material is a good insulator λ is expressed in (w/m² °C)

"K"- value:

the total insulation value (k) of a material is the thermal conductivity of the material (λ) divided by the thickness of the material (l) expressed in meters

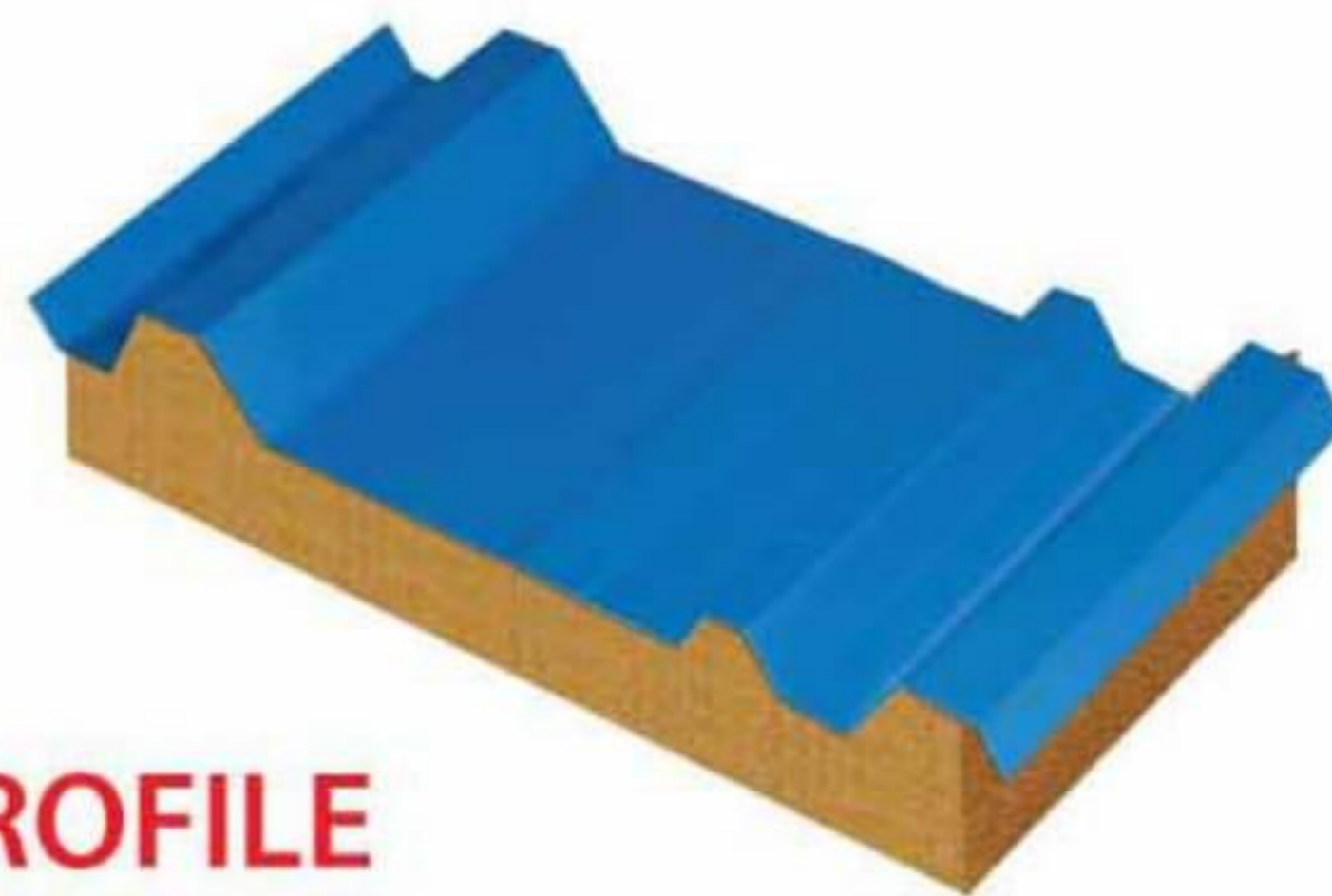
$$K = \frac{\lambda}{L} \quad (W/M^2 \cdot C)$$

"U"- value:

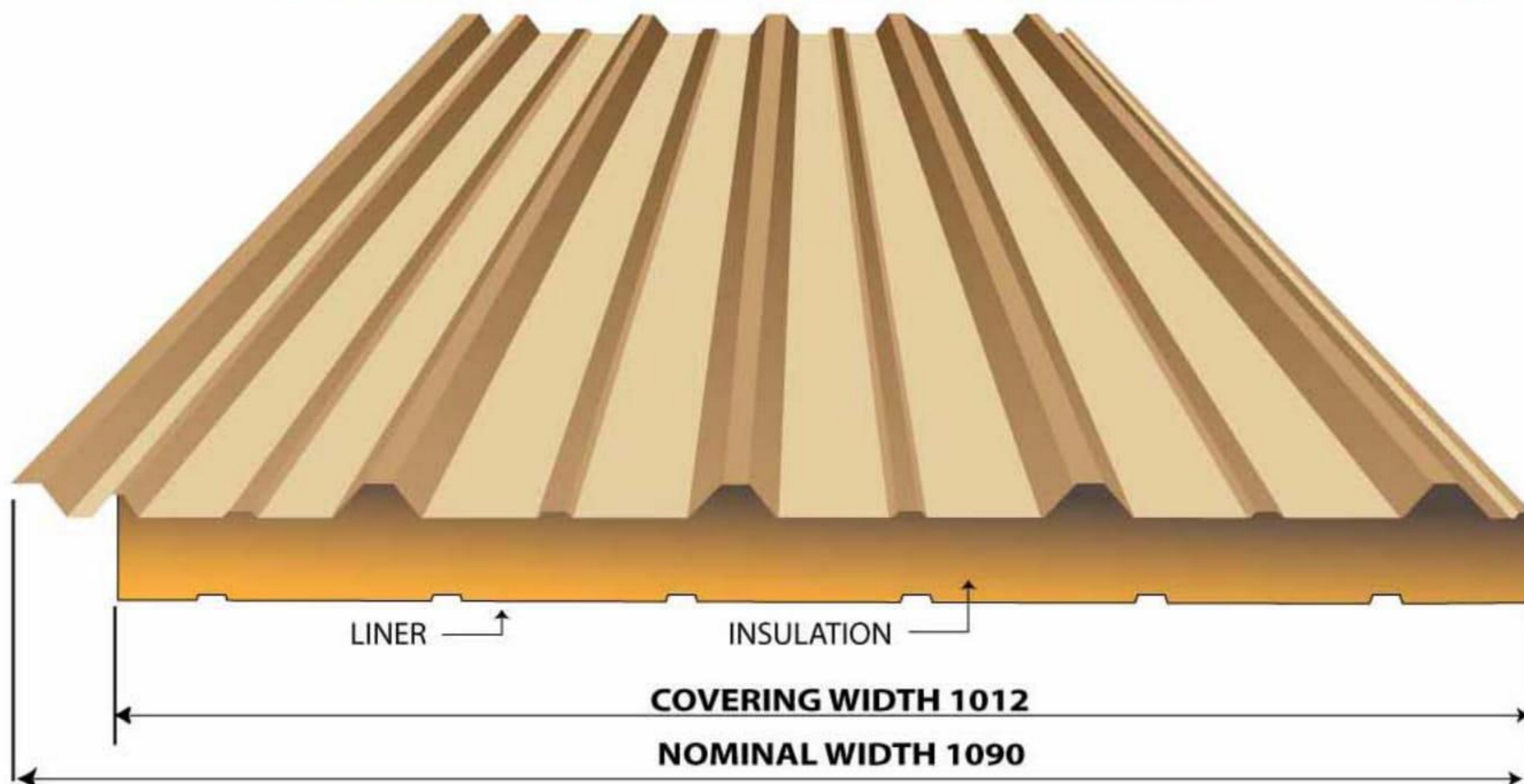
the total insulation value (u) of a composite construction is determined by the insulation values of the various materials (k₁,k₂etc) forming the construction, according to the following formula:

$$U = \frac{1}{0.2 + \frac{1}{K_1} + \frac{1}{K_2} + \text{ETC}} \quad (W/M^2 \cdot C)$$

These are basic information about heat-transfer and insulation values for consultants use and calculations. For further information and advises contact ralco Profiles



DOUBLE LAP LEAKPROOF PROFILE



RALCO 25/253 PANEL

Features

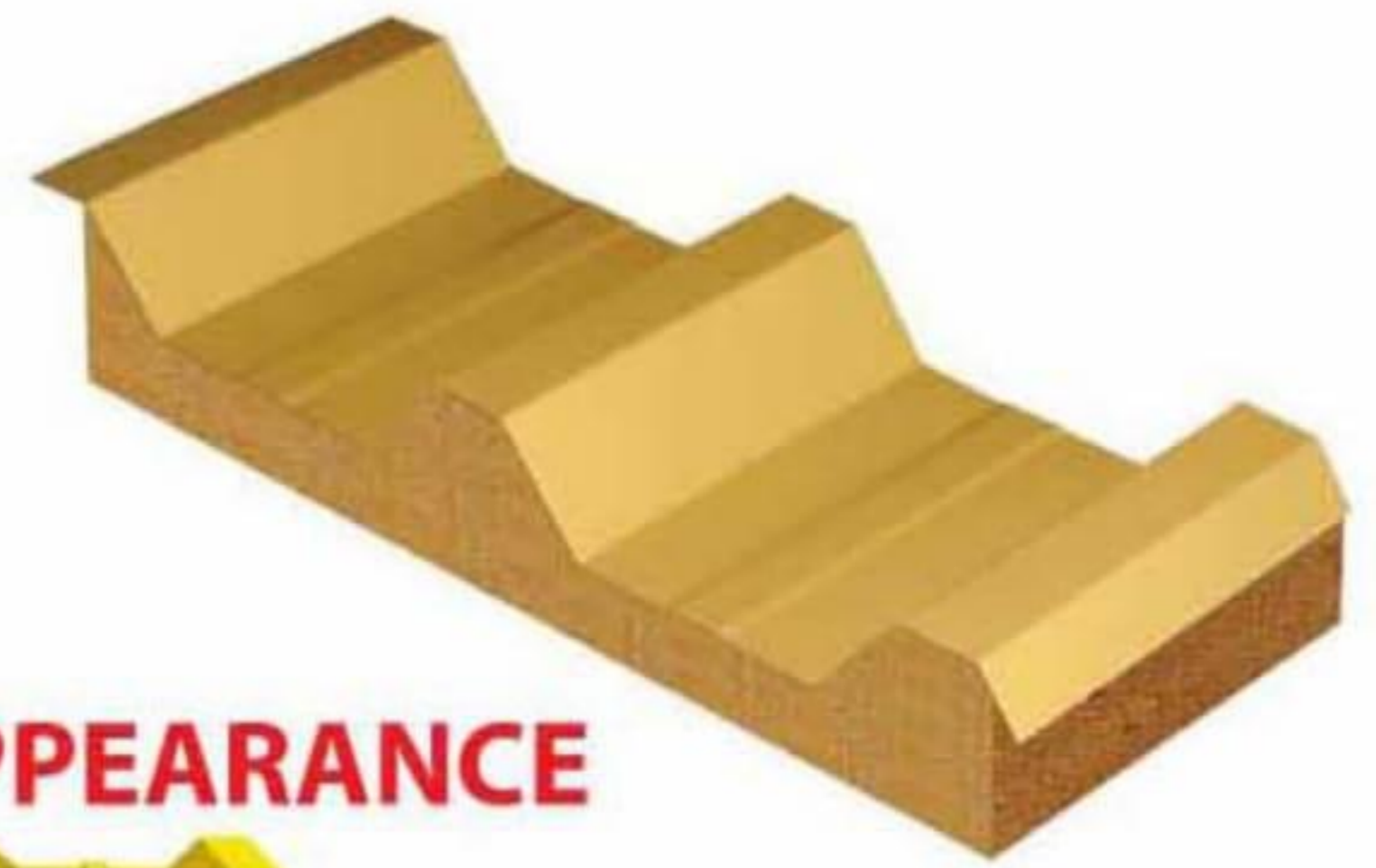
- Equiped with modern technology
- Economical- 1.012 mm covering width
- Any length,14 meters width of 1.012 mm
- Superb Thermal Insulation
- Environment Freindly
- Cost Efficient
- Tough, reliable and guaranteed
- High quality, lightweight, and easy to install
- Innovative manufacturing allows panels to be constructed to fit any dimension
- Delivery is on time and on budget

Polyurethane

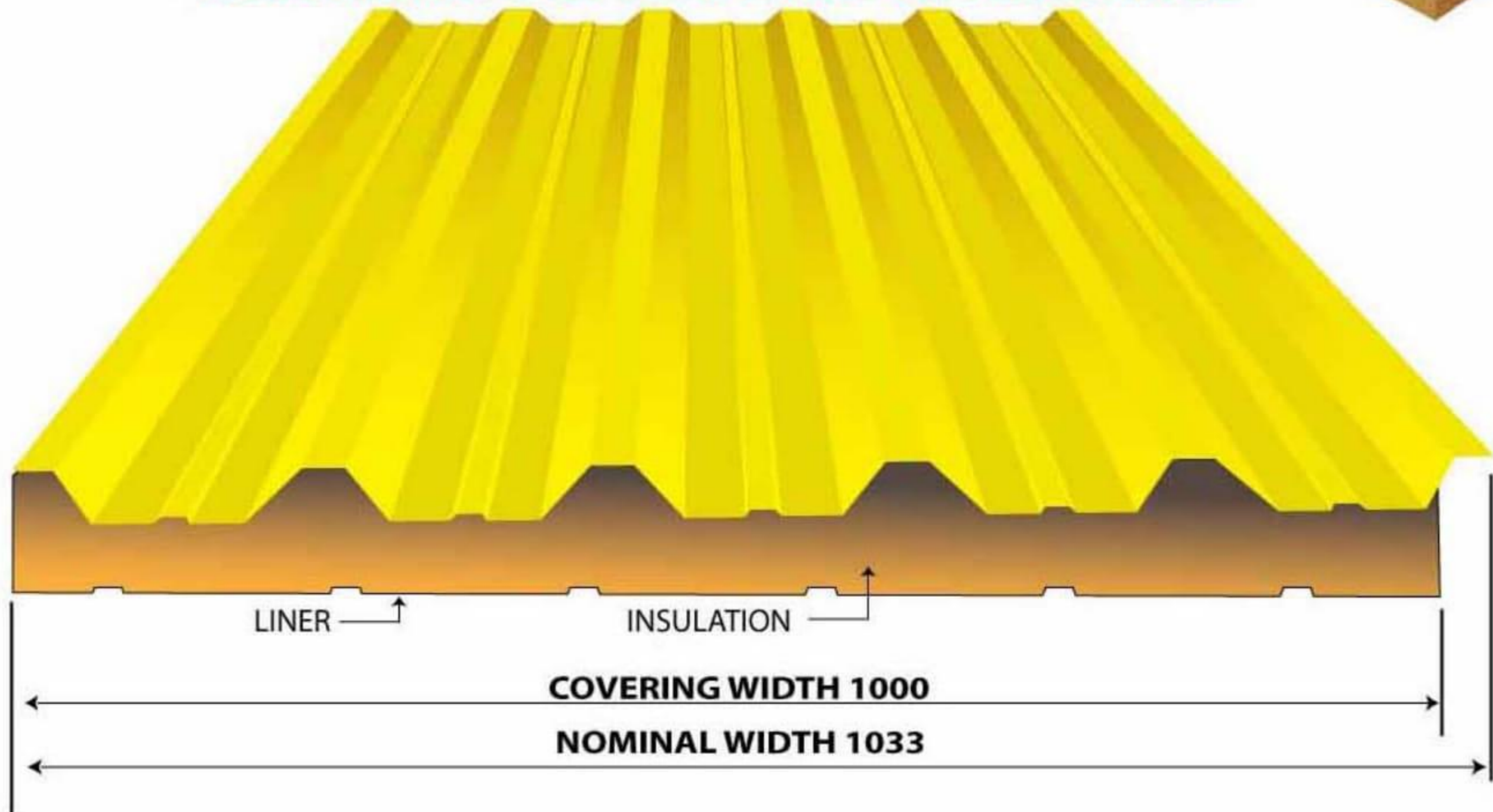
Average Density: 35 kg/M3
to 40 kg/M3
Thickness: 25 mm to 100 mm

"U" VALUE

PU THICKNESS	W/M2°C
25 mm	0.76
35 mm	0.54
50 mm	0.38



AESTHETICALLY PLEASING APPEARANCE



RALCO 38/200 PANEL

Features

- Equiped with modern technology
- Economical- 1.000 m covering width
- Any length, 14 meters width of 1.000 m
- Superb Thermal Insulation
- Cost Efficient
- Tough, reliable and guaranteed
- High quality, lightweight, and easy to install
- Innovative manufacturing allows panels to be constructed to fit any dimension
- Delivery is on time and on budget

Polyurethane

Average Density: 35 kg/M³
to 40 kg/M³

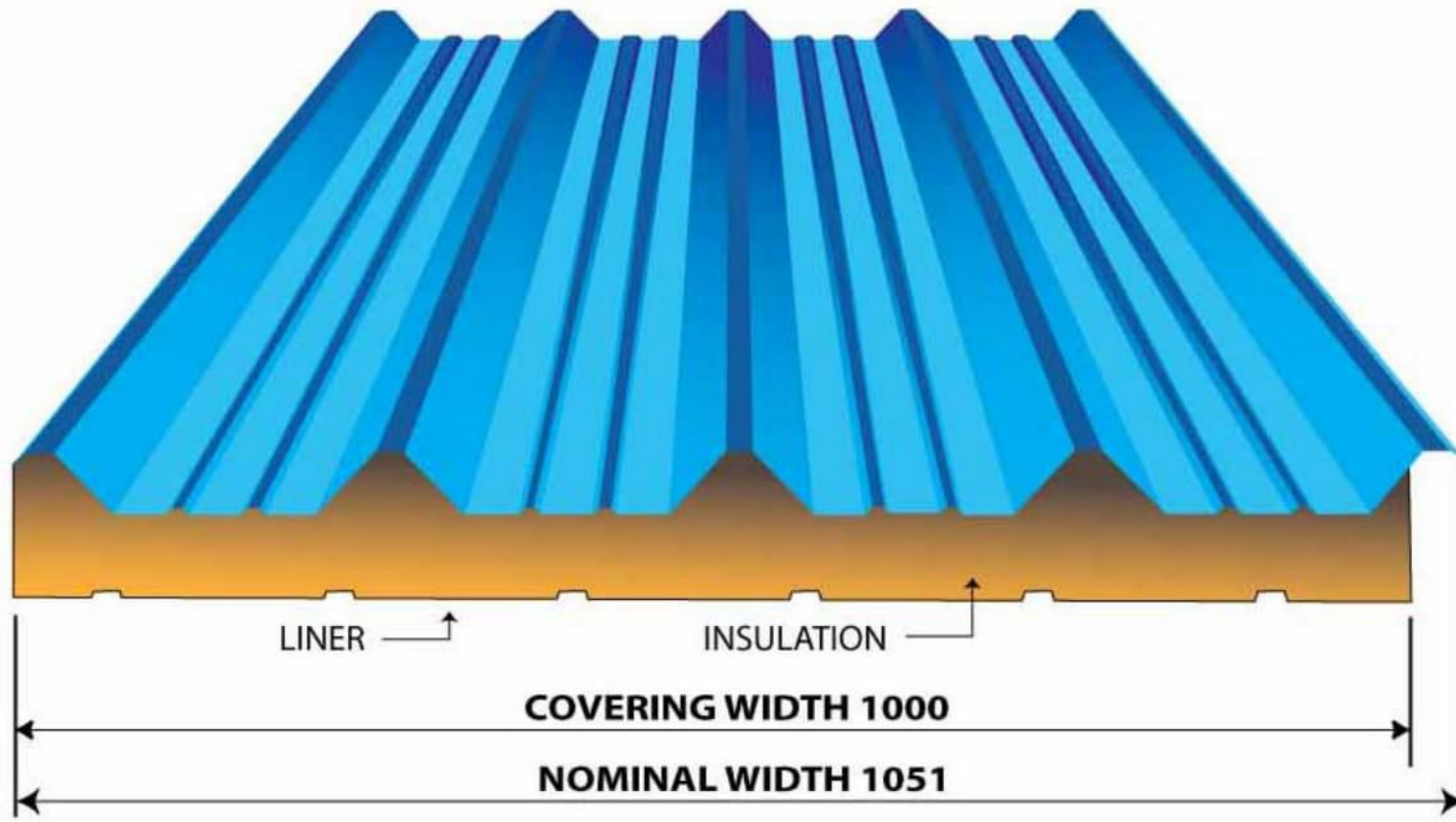
Thickness: 25 mm to 100 mm

"U" VALUE

PU THICKNESS	W/M ² °C
25 mm	0.76
35 mm	0.54
50 mm	0.38



EXCEPTIONAL SPANNING CAPABILITY PROFILE



RALCO 45/250 PANEL

Features

- Equiped with modern technology
- Economical- 1.000 m covering width
- Any length, 14 meters width of 1.000 m
- Superb Thermal Insulation
- Cost Efficient
- Tough, reliable and guaranteed
- High quality, lightweight, and easy to install
- Innovative manufacturing allows panels to be constructed to fit any dimension
- Delivery is on time and on budget

Polyurethane

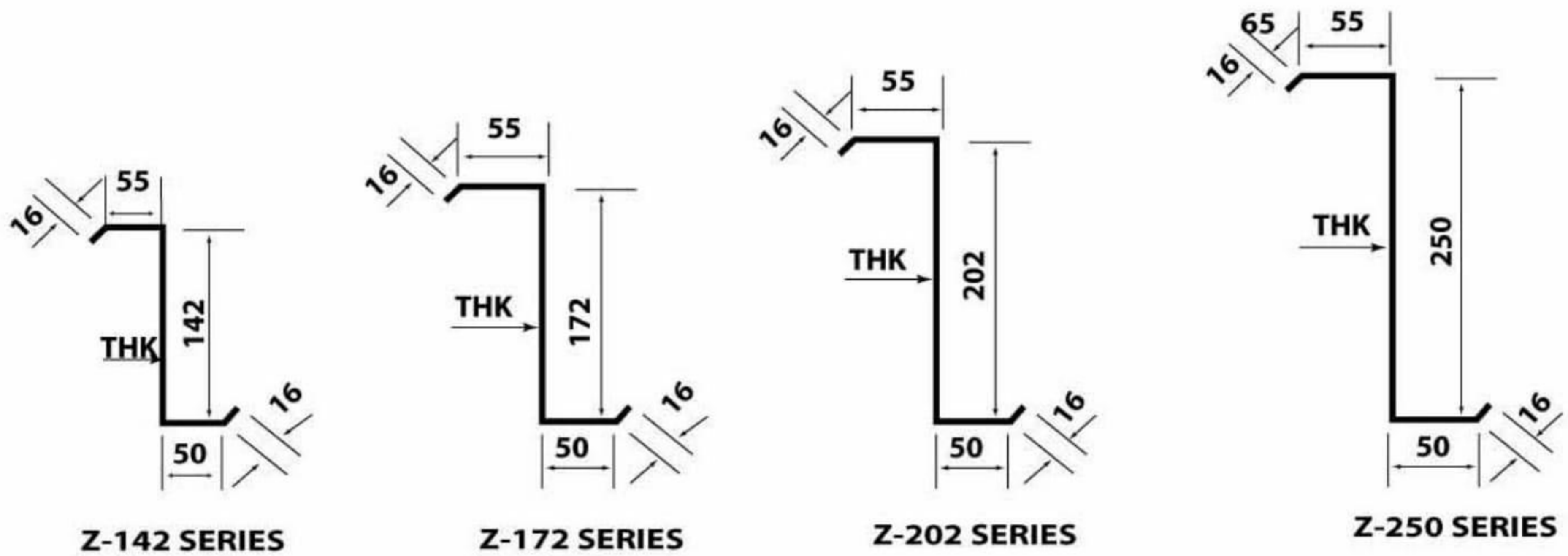
Average Density: 35 kg/M³
to 40 kg/M³
Thickness: 25 mm to 100 mm

"U" VALUE

PU THICKNESS	W/M ² °C
25 mm	0.76
35 mm	0.54
50 mm	0.38

STANDARD "Z" PURLIN

SECONDARY STRUCTURAL MEMBER

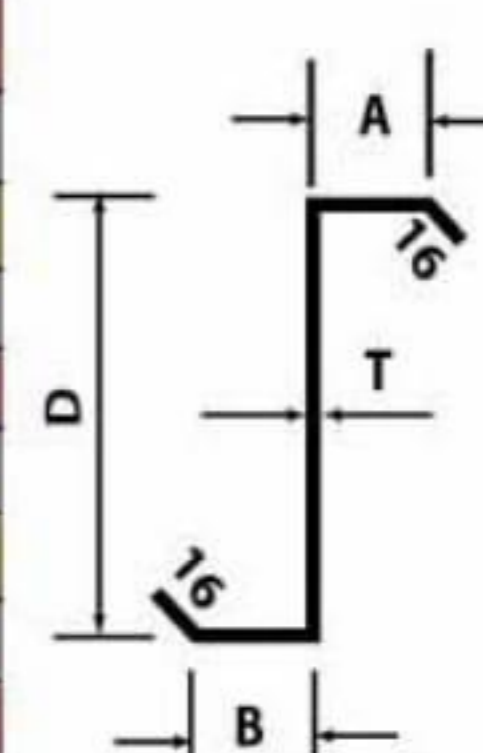


WE CAN PRODUCE ANY SIZE OF PURLIN FROM 142 MM TO 302 MM WEB



PROPERTIES "Z" SECTIONS

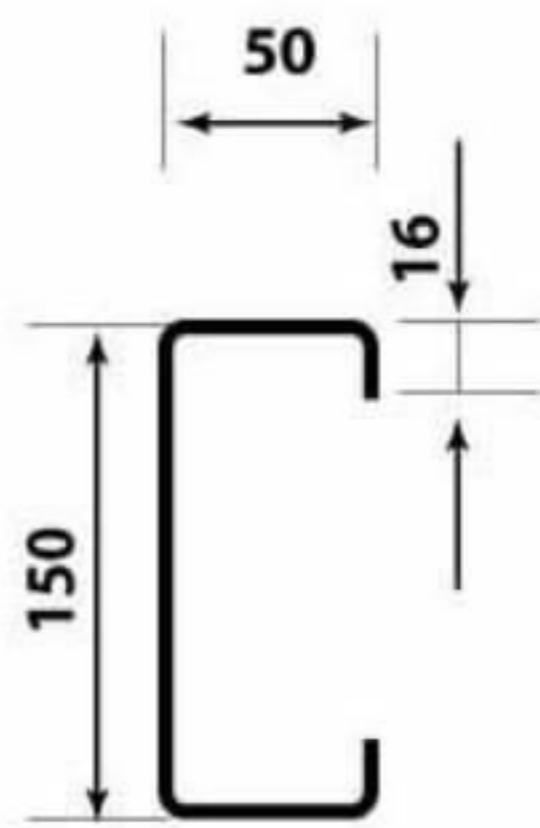
Section	Depth D	Thickness T	Lip	Top Flange A	Btm. Flange B	Weight	Area	Ixx	Zxx (Top)	Zyy (Bot)	r yy
	(mm)	(mm)	(mm)	(mm)	(mm)	(Kg/M)	(cm ²)	(cm ⁴)	(cm ³)	(cm ³)	(mm)
14215	142	1.5	16.0	55	50	2.95	3.57	101.7	14.64	14.04	18.81
14220	142	2.0	16.0	55	50	3.93	4.71	132.8	19.10	18.32	18.47
14225	142	2.5	16.0	55	50	4.92	5.83	162.4	23.37	22.40	18.14
17215	172	1.5	16.0	55	50	3.59	4.32	183.8	21.74	21.01	22.64
17220	172	2.0	16.0	55	50	4.79	5.71	240.7	28.49	27.52	22.31
17225	172	2.5	16.0	55	50	5.98	7.08	295.6	34.98	33.79	21.97
20215	202	1.5	16.0	55	50	3.93	4.77	270.4	27.20	26.36	21.55
20220	202	2.0	16.0	55	50	5.24	6.31	354.8	35.69	34.59	21.22
20225	202	2.5	16.0	55	50	6.55	7.83	436.3	43.89	42.53	20.89
25015	250	1.5	16.0	55	50	4.79	5.71	500.9	40.59	39.56	24.74
25020	250	2.0	16.0	55	50	6.39	7.67	659.0	53.41	52.05	24.41
25025	250	2.5	16.0	55	50	7.98	9.53	812.7	65.87	64.18	24.08



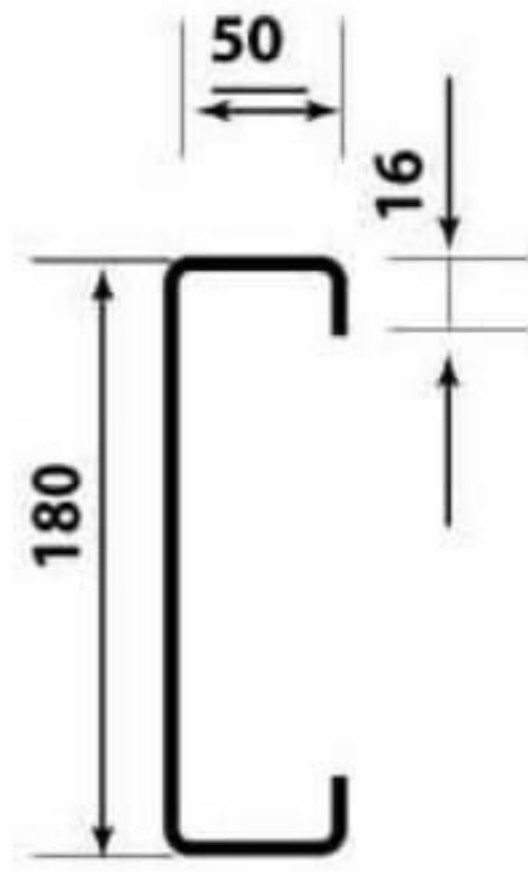
PURLINS, GIRTS ARE FORMED FROM STEEL WHICH HAS A MINIMUM YIELD STRENGTH OF 345 MPa (50Ksi).

STANDARD "C" CHANNEL

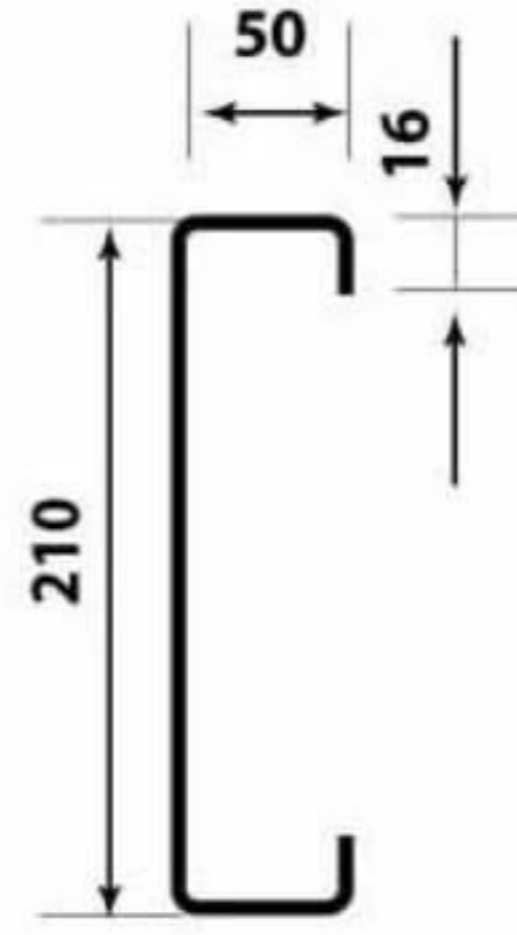
SECONDARY STRUCTURAL MEMBER



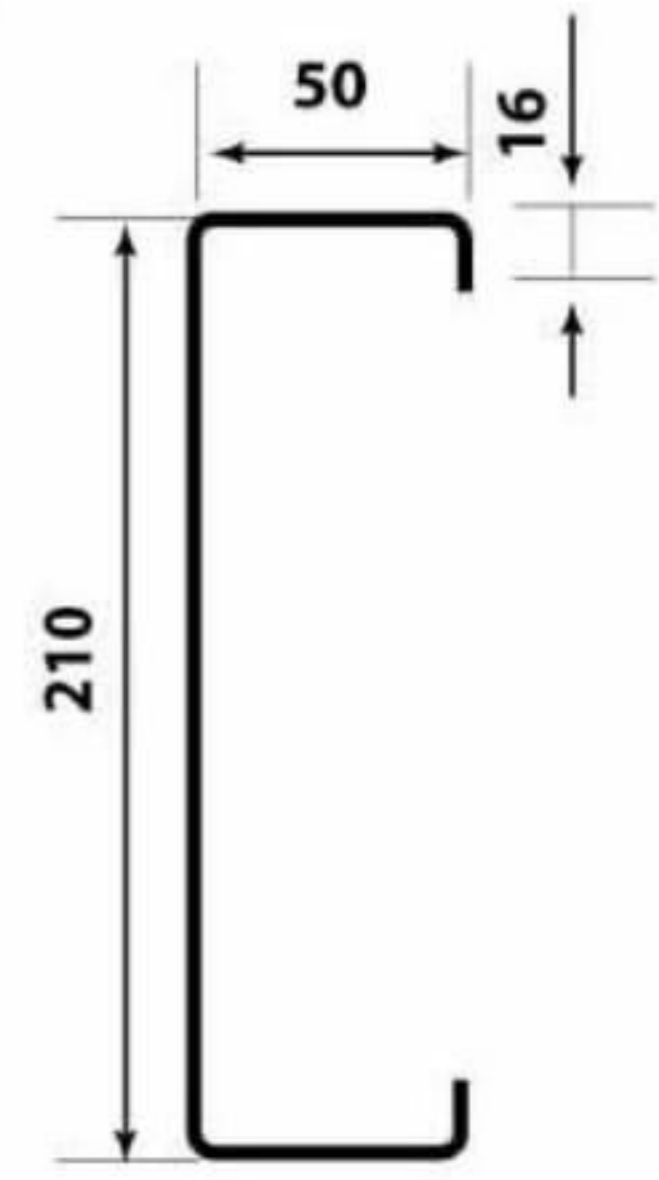
C-150 SERIES



C-180 SERIES

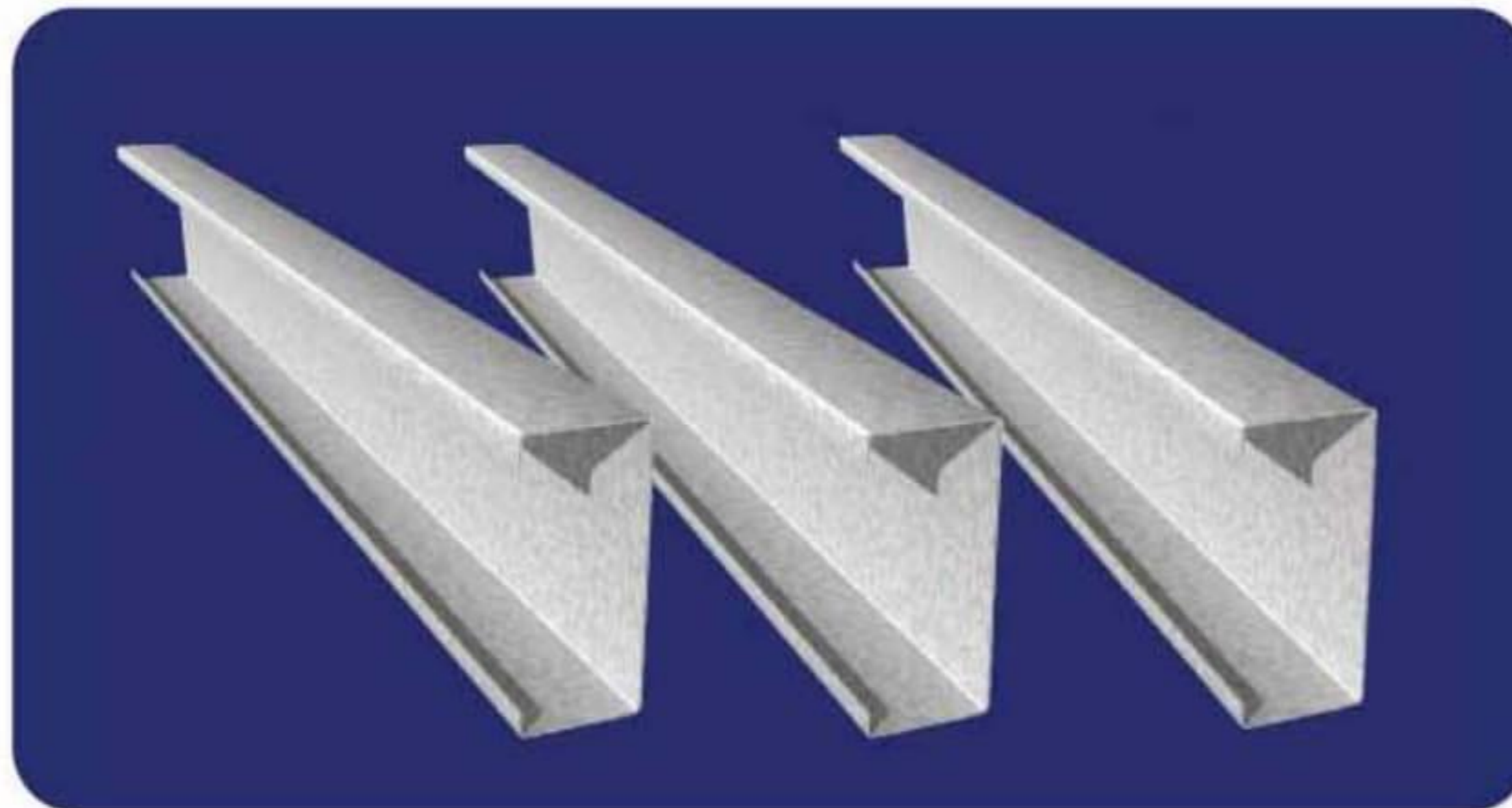


C-210 SERIES



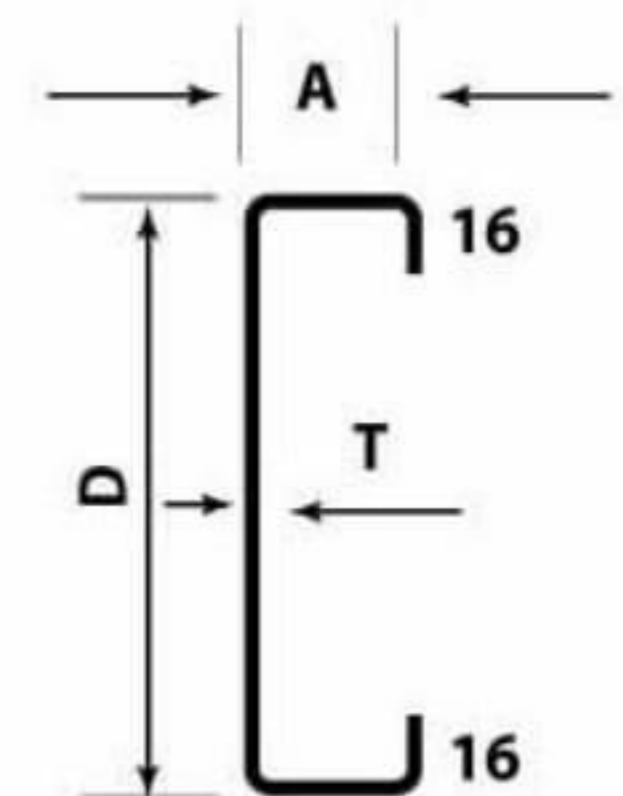
C-258 SERIES

WE CAN PRODUCE ANY SIZE OF PURLIN FROM 140MM TO 300 MM WEB AND 50 FLANGE SIZE



PROPERTIES "C" SECTIONS

Section	Depth D (mm)	Thickness T (mm)	Lip (mm)	Flange A (mm)	Weight (Kg/M)	Area (cm ²)	Ixx (cm ⁴)	Zxx (cm ³)	Zyy (cm ³)	r yy (mm)
15015	150	1.5	16.0	50	3.59	4.21	145.2	19.36	4.61	21.50
15020	150	2.0	16.0	50	4.79	5.57	190.1	25.35	5.95	21.30
15025	150	2.5	16.0	50	5.98	6.90	233.4	31.12	7.20	21.00
18015	180	1.5	16.0	50	3.59	4.21	187.1	20.79	2.99	15.50
18020	180	2.0	16.0	50	4.79	5.57	244.9	27.22	3.83	15.30
18025	180	2.5	16.0	50	5.98	6.90	300.5	33.39	4.60	15.00
21015	210	1.5	16.0	50	3.93	4.66	272.8	35.98	3.03	15.10
21020	210	2.0	16.0	50	5.24	6.17	357.7	34.06	3.88	14.80
21025	210	2.5	16.0	50	6.55	7.65	439.6	41.86	4.66	14.60
25815	258	1.5	16.0	50	4.79	5.83	528.5	40.97	4.87	19.80
25820	258	2.0	16.0	50	6.39	7.73	695.3	53.90	6.29	19.50
25825	258	2.5	16.0	50	7.98	9.60	857.5	66.47	7.61	19.30



PURLINS, GIRTS ARE FORMED FROM STEEL WHICH HAS A MINIMUM YIELD STRENGTH OF 345 MPa (50Ksi).

PURLIN SLEEVED SYSTEM



All holes 14mm diameter for M12 bolts (U.N.O)

All dimensions in millimeters.

Clearance between purlins at all joints - 6mm.

End fixing holes are supplied as shown, other 14 mm diameter holes which may be required are normally pierced in pairs on standard gauge lines

For easy handling on site it is suggested that 142 sections are kept to a maximum length of 10.0m.

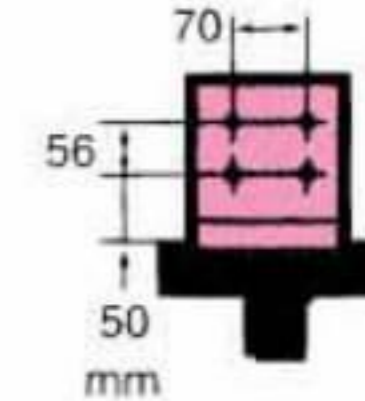
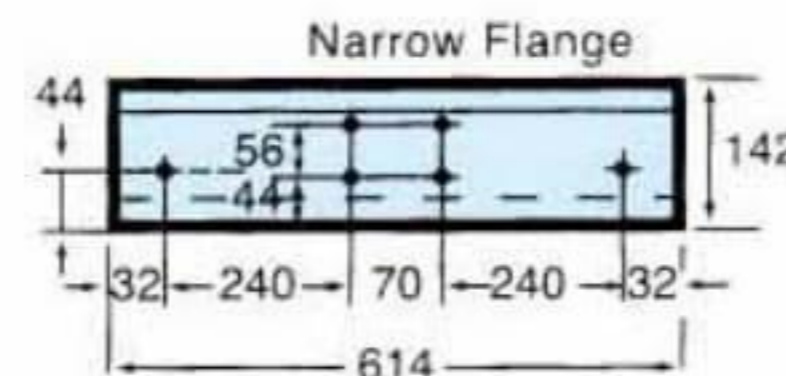
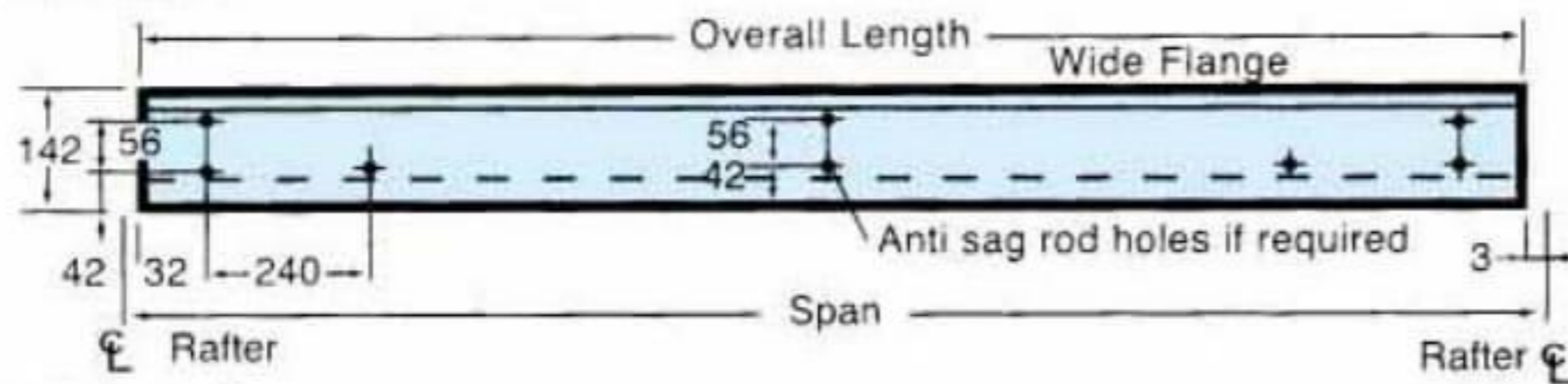
Remaining sections to a maximum length of 15.0m. It should be noted that lengths in excess of 13.0m may carry a higher transport charge.

STANDARD PIERCING

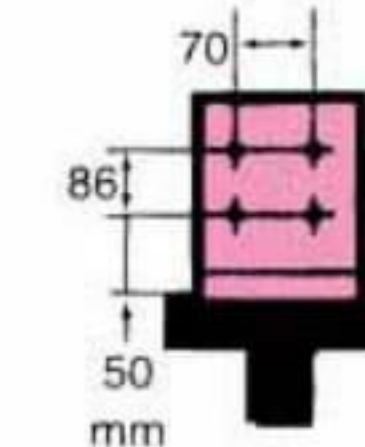
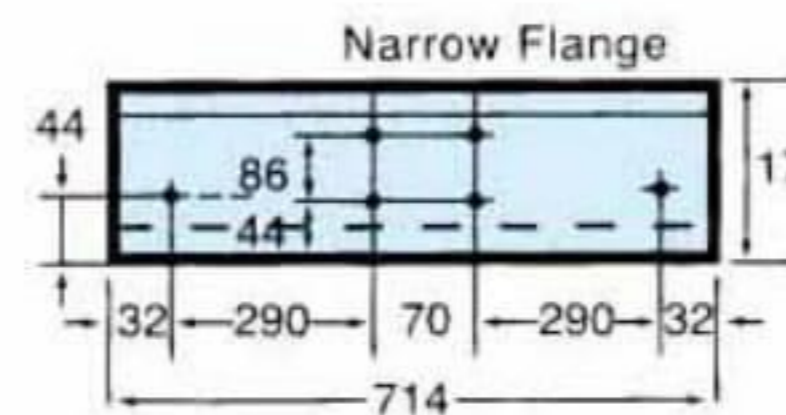
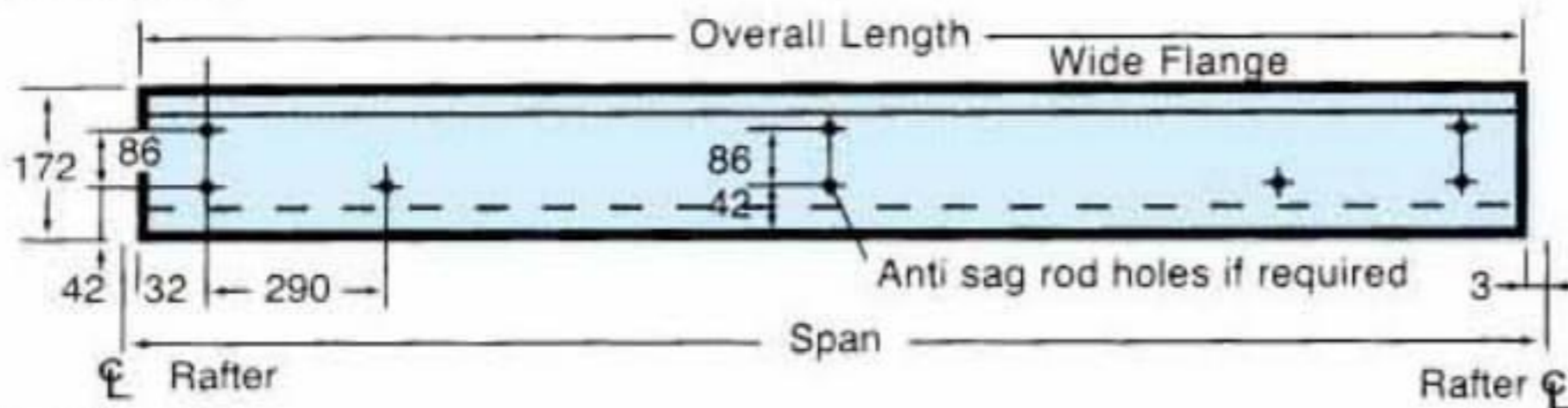
SLEEVES

CLEATS

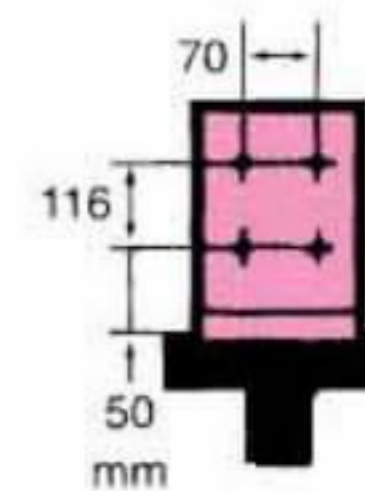
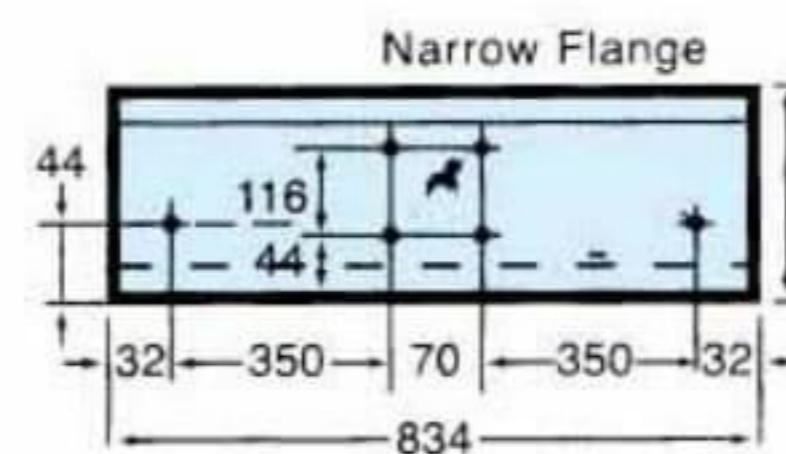
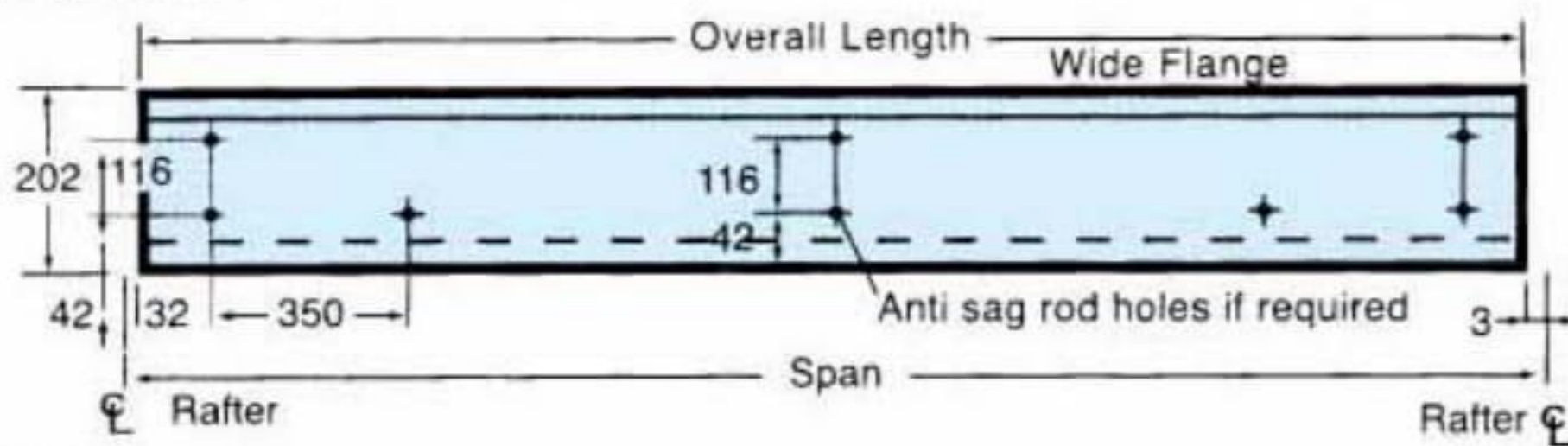
142 SERIES



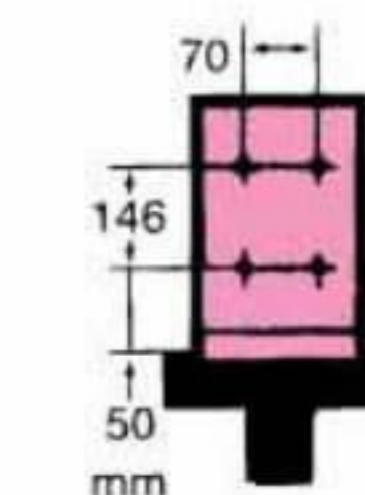
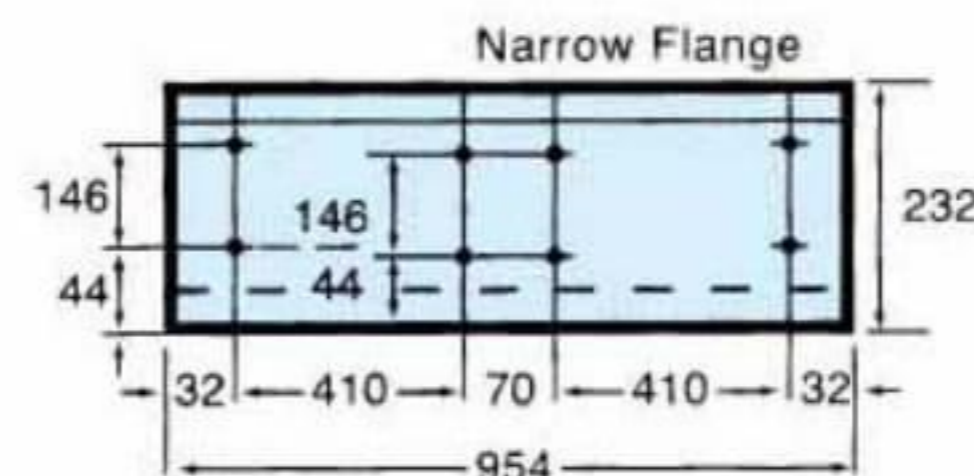
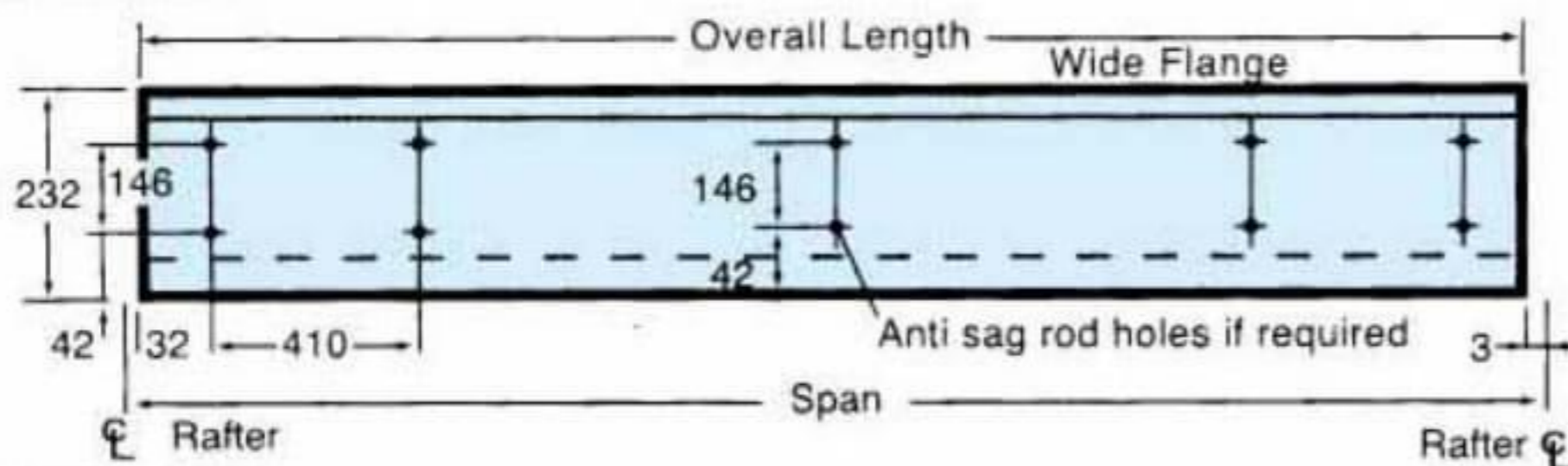
172 SERIES



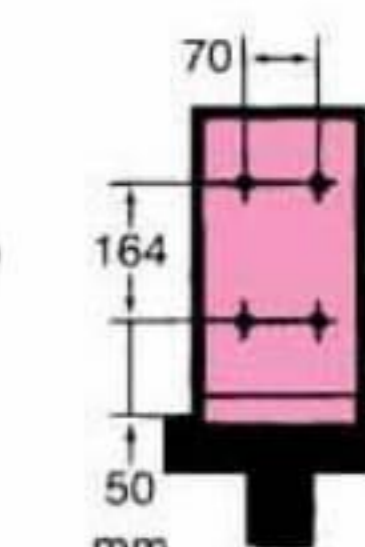
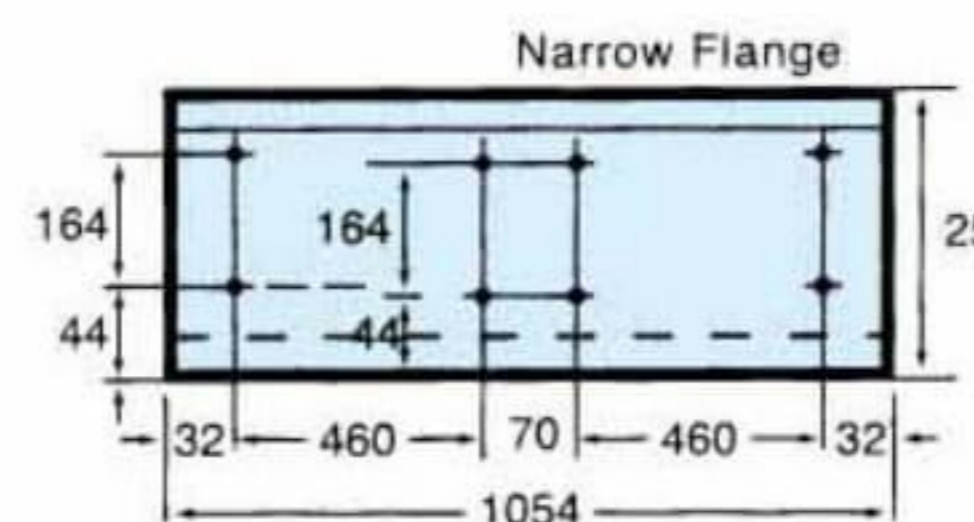
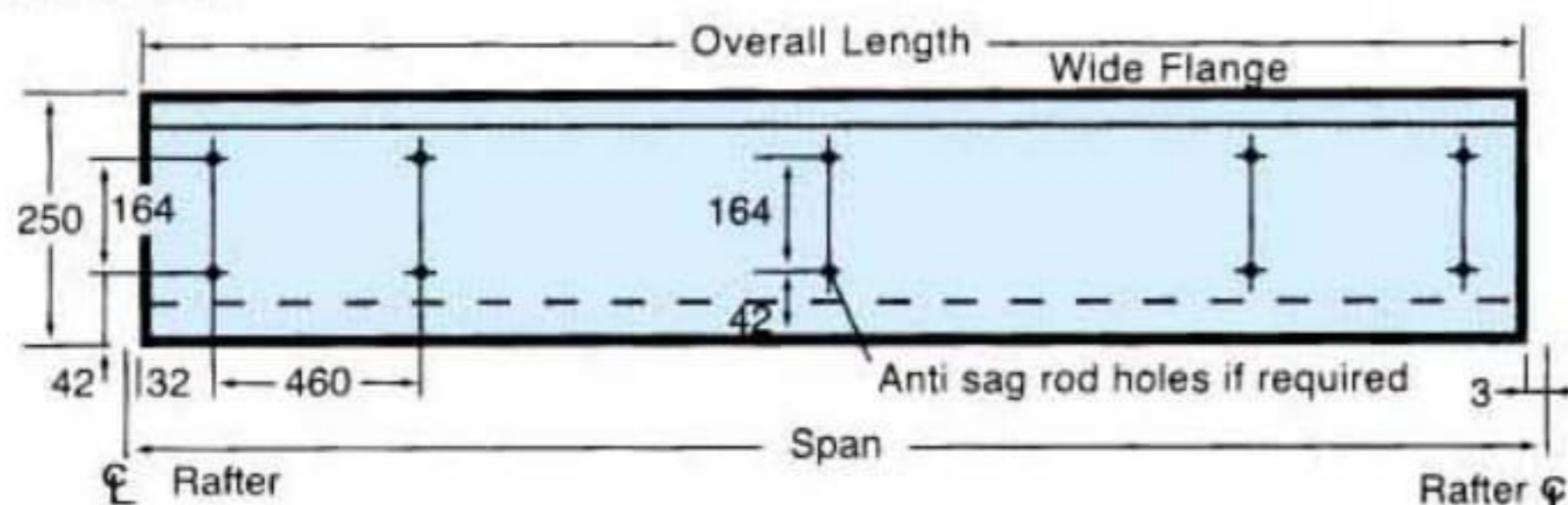
202 SERIES



232 SERIES



250 SERIES



DESIGN DATA



Purlins Sleeved System Allowable (Dead + Wind) Loads in Working Stress-Kn/m ²												
Purlin Span (m)	Purlin C/C (m)	Z-Purlin Sections										
		14215	14220	17215	17220	20215	20220	25015	25020			
4.00	1.00	1.687	2.199	2.455	3.305	3.083	4.154	3.898	6.039			
	1-25	1.350	1.759	1.964	2.644	2.466	3.323	3.118	4.831			
	1.50	1.125	1.466	1.637	2.203	2.055	2.769	2.599	4-026			
	1.75	0.964	1.257	1.403	1.889	1.762	2.374	2.227	3.451			
	1.00	1.333	1.737	1.940	2.611	2.436	3.282	3.080	4.772			
4.50	1.25	1.066	1.390	1.552	2.089	1.949	2.626	2.464	3.818			
	1.50	0.889	1.158	1.293	1.741	1.624	2.188	2.053	3.181			
	1.75	0.762	0.993	1.109	1.492	1.392	1.875	1.760	2.727			
	1.00	1.080	1.407	1.571	2.115	1.973	2.658	2.495	3.865			
	1.25	0.864	1.126	1.257	1.692	1.578	2.126	1.996	3.092			
5.00	1.50	0.720	0.938	1.047	1.410	1.315	1.772	1.663	2.577			
	1.75	0.892	1.163	1.298	1.748	1.631	2.197	2.062	3.194			
	1.00	0.930	1.298	1.438	1.938	1.805	2.465	2.305	3.555			
	1.25	0.775	1.038	1.165	1.665	1.587	2.129	1.975	2.825			
	1.50	0.650	0.885	0.999	1.375	1.285	1.718	1.625	2.209			
5.50	1.75	0.550	0.742	0.832	1.167	1.096	1.477	1.386	2.147			
	1.00	0.977	1.298	1.438	1.938	1.805	2.465	2.305	3.555			
	1.25	0.782	1.038	1.165	1.665	1.587	2.129	1.975	2.825			
	1.50	0.650	0.885	0.999	1.375	1.285	1.718	1.625	2.209			
	1.75	0.550	0.742	0.832	1.167	1.096	1.477	1.386	2.147			
6.00	1.00	0.977	1.298	1.438	1.938	1.805	2.465	2.305	3.555			
	1.25	0.782	1.038	1.165	1.665	1.587	2.129	1.975	2.825			
	1.50	0.650	0.885	0.999	1.375	1.285	1.718	1.625	2.209			
	1.75	0.550	0.742	0.832	1.167	1.096	1.477	1.386	2.147			
	1.00	0.977	1.298	1.438	1.938	1.805	2.465	2.305	3.555			
6.50	1.25	0.782	1.038	1.165	1.665	1.587	2.129	1.975	2.825			
	1.50	0.650	0.885	0.999	1.375	1.285	1.718	1.625	2.209			
	1.75	0.550	0.742	0.832	1.167	1.096	1.477	1.386	2.147			
	1.00	0.977	1.298	1.438	1.938	1.805	2.465	2.305	3.555			
	1.25	0.782	1.038	1.165	1.665	1.587	2.129	1.975	2.825			
7.00	1.50	0.650	0.885	0.999	1.375	1.285	1.718	1.625	2.209			
	1.75	0.550	0.742	0.832	1.167	1.096	1.477	1.386	2.147			
	1.00	0.977	1.298	1.438	1.938	1.805	2.465	2.305	3.555			
	1.25	0.782	1.038	1.165	1.665	1.587	2.129	1.975	2.825			
	1.50	0.650	0.885	0.999	1.375	1.285	1.718	1.625	2.209			
7.50	1.75	0.550	0.742	0.832	1.167	1.096	1.477	1.386	2.147			
	1.00	0.977	1.298	1.438	1.938	1.805	2.465	2.305	3.555			
	1.25	0.782	1.038	1.165	1.665	1.587	2.129	1.975	2.825			
	1.50	0.650	0.885	0.999	1.375	1.285	1.718	1.625	2.209			
	1.75	0.550	0.742	0.832	1.167	1.096	1.477	1.386	2.147			
8.00	1.00	0.977	1.298	1.438	1.938	1.805	2.465	2.305	3.555			
	1.25	0.782	1.038	1.165	1.665	1.587	2.129	1.975	2.825			
	1.50	0.650	0.885	0.999	1.375	1.285	1.718	1.625	2.209			
	1.75	0.550	0.742	0.832	1.167	1.096	1.477	1.386	2.147			
	1.00	0.977	1.298	1.438	1.938	1.805	2.465	2.305	3.555			
8.50	1.25	0.782	1.038	1.165	1.665	1.587	2.129	1.975	2.825			
	1.50	0.650	0.885	0.999	1.375	1.285	1.718	1.625	2.209			
	1.75	0.550	0.742	0.832	1.167	1.096	1.477	1.386	2.147			
	1.00	0.977	1.298	1.438	1.938	1.805	2.465	2.305	3.555			
	1.25	0.782	1.038	1.165	1.665	1.587	2.129	1.975	2.825			
9.00	1.50	0.650	0.885	0.999	1.375	1.285	1.718	1.625	2.209			
	1.75	0.550	0.742	0.832	1.167	1.096	1.477	1.386	2.147			
	1.00	0.977	1.298	1.438	1.938	1.805	2.465	2.305	3.555			
	1.25	0.782	1.038	1.165	1.665	1.587	2.129	1.975	2.825			
	1.50	0.650	0.885	0.999	1.375	1.285	1.718	1.625	2.209			
9.50	1.75	0.550	0.742	0.832	1.167	1.096	1.477	1.386	2.147			
	1.00	0.977	1.298	1.438	1.938	1.805	2.465	2.305	3.555			
	1.25	0.782	1.038	1.165	1.665	1.587	2.129	1.975	2.825			
	1.50	0.650	0.885	0.999	1.375	1.285	1.718	1.625	2.209			
	1.75	0.550	0.742	0.832	1.167	1.096	1.477	1.386	2.147			
10.00	1.00	0.977	1.298	1.438	1.938	1.805	2.465	2.305	3.555			
	1.25	0.782	1.038	1.165	1.665	1.587	2.129	1.975	2.825			
	1.50	0.650	0.885	0.999	1.375	1.285	1.718	1.625	2.209			
	1.75	0.550	0.742	0.832	1.167	1.096	1.477	1.386	2.147			
	1.00	0.977	1.298	1.438	1.938	1.805	2.465	2.305	3.555			

Purlins Sleeved System Allowable (Dead + Live+Collateral) Loads in Working Stress-Kn/m ²												
Purlin Span (m)	Purlin C/C (m)	Z-Purlin Sections										
		14215	14220	17215	17220	20215	20220	25015	25020			
4.00	1.00	1.812	2.362	2.637	3.550	3.312	4.462	4.187	6.487			
	1-25	1.450	1.890	2.110	2.840	2.650	3.570	3.350	5.190			
	1.50	1.208	1.575	1.758	2.367	2.208	2.975	2.791	4.325			
	1.75	1.035	1.350	1.507	2.029	1.893	2.550	2.393	3.707			
	1.00	1.432	1.866	2.084	2.804	2.617	3.525	3.308	5.125			
4.50	1.25	1.146	1.493	1.667	2.243	2.094	2.820	2.646	4.100			
	1.50	0.955	1.244	1.389	1.869	1.745	2.350	2.205	3.417			
	1.75	0.818	1.066	1.191	1.602	1.495	2.014	1.890	2.929			
	1.00	1.094	1.426	1.688	2.272	2.120	2.856	2.680	4.152			
	1.25	0.875	1.141	1.350	1.818	1.696	2.285	2.144	3.322			
5.00	1.50	0.729	0.951	1.125	1.515	1.413	1.904	1.787	2.768			
	1.75	0.625	0.815	0.965	1.298	1.211	1.632	1.531	2.373			
	1.00	0.822	1.072	1.395	1.877	1.752	2.360	2.214	3.431			
	1.25	0.658	0.858	1.116	1.502	1.402	1.888	1.771	2.745			
	1.50	0.550	0.715	0.930	1.251	1.168	1.573	1.476	2.287			
5.50	1.75	0.450	0.613	0.797	1.073	1.001	1.349	1.265	1.961			
	1.00	0.633	0.825	1.143	1.497	1.472	1.983	1.861	2.883			
	1.25	0.514	0.660	0.914	1.198	1.178	1.586	1.489	2.306			
	1.50	0.422	0.562	0.762	0.998	0.981	1.322	1.241	1.922			
	1.75	0.353	0.485	0.653	0.855	0.841	1.133	1.063	1.647			
6.00	1.00	0.649	0.899	1.178	1.574	1.554	1.689	1.585	2.456			
	1.25	0.519	0.719	0.942	1.268	1.251	1.351	1.268	1.965			
	1.50	0.436	0.586	0.785	0.836	0.836	1.126	1.057	1.637			
	1.75	0.373	0.506	0.673	0.717	0.717	0.965	0.906	1.403			
	1.00	0.943	1.259	1.599	2.118	2.118	2.367	2.218	3.431			
6.50	1.25	0.754	0.847	1.112	1.094	1.094	1.694	1.694	2.456			
	1.50	0.629	0.706	0.911	0.927	0.911	1.412	1.412	2.100			
	1.75	0.605	0.794	0.861	0.861	0.861	1.130	1.130	1.845			
	1.00	0.766	0.869	1.130	1.390	1.390	1.646	1.646	2.456			
	1.25	0.646	0.794	0.931	0.931	0.931	1.230	1.230	1.965			
7.00	1.50	0.646	0.794	0.931	0.931	0.931	1.230	1.230	1.965			
	1.75	0.646	0.794	0.931	0.931	0.931	1.230	1.230	1.965			
	1.00	0.904	1.230	1.621	2.118	2.118	2.367	2.218	3.431			
	1.25	0.753	0.847	1.112	1.094	1.094	1.694	1.694	2.456			
	1.50	0.629	0.706	0.911	0.927	0.911	1.412	1.412	2.100			
7.50	1.75	0.605	0.794	0.861	0.861	0.861	1.130	1.130	1.845			
	1.00	0.869	1.130	1.390	1.646	1.646	2.456	2.456	3.431			
	1.25	0.717	0.965	1.268	1.586	1.586	1.922	1.922	2.745			
	1.50	0.629	0.706	0.911	0.927	0.911	1.412	1.412	2.100			
	1.75	0.605	0.794	0.861	0.861	0.861	1.130	1.130	1.845			
8.00	1.00	0.869	1.130	1.390	1.646	1.646	2.456	2.456	3.431			
	1.25	0.717	0.965	1.268	1.586	1.586	1.922	1.922	2.745			
	1.50	0.629	0.706	0.911	0.927	0.911	1.412	1.412	2.100			
	1.75	0.605	0.794	0.861	0.861	0.861	1.130	1.130	1.845			
	1.00	0.904	1.230	1.621	2.118	2.118	2.367	2.218	3.431			
8.50	1.25	0.753	0.847	1.112	1.094	1.094	1.694	1.694	2.456			
	1.50	0.629	0.706	0.911	0.927	0.911	1.412	1.412	2.100			
	1.75	0.605	0.794	0.861	0.861	0.861	1.130	1.130	1.845			
	1.00	0.869	1.130	1.390	1.646	1.646	2.456	2.456	3.431			
	1.25	0.717	0.965	1.268	1.586	1.586	1.922	1.922	2.745			
9.00	1.50	0.629	0.706	0.911	0.927	0.911	1.412	1.412	2.100			
	1.75	0.605	0.794	0.861	0.861	0.861	1.130	1.130	1.845			
	1.00	0.904	1.230	1.621	2.118	2.118	2.367	2.218	3.431			
	1.25	0.753	0.847	1.112	1.094	1.094	1.694	1.694	2.456			
	1.50	0.629	0.706	0.911	0.927	0.911	1.412	1.412	2.100			
9.50	1.75	0.605	0.794	0.861	0.861	0.861	1.130	1.130	1.845			
	1.00	0.869	1.130	1.390	1.646	1.646	2.456	2.456	3.431			
	1.25	0.717	0.965	1.268	1.586							

ACCESSORIES



TYPE "A": Thread of 2,54-Pointed end

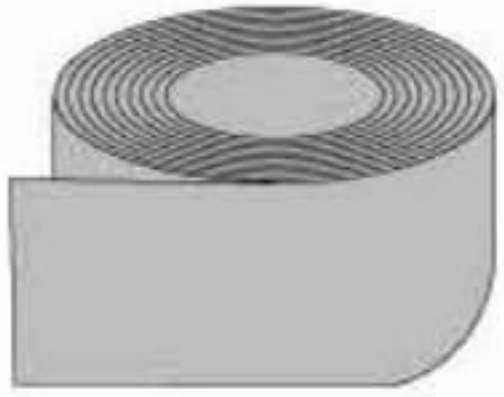
- On Wood purlins
 - On Steel pulins less than 3 mm thickness
- Screw with Ø 19 mm washer
6,5 x 25 mm
6,5 x 70 mm
6,5 x 130 mm



POP BLIND RIVETS

Sealed Type-99.5% pure Aluminium
Material composition to BS1475 A199.5
Mandrel : Aluminium (A)
PD 68A 48 x 11.4 mm

Tensile 1060 N
Strength (240lbf)
Shear 1060 N
Strength (240lbf)



PURLIN TAPE

Polyester cloth laminated to a polyethylene backing with a high tack, natural rubber adhesive
COLOURS
Silver or Black



BUTYL STRIP

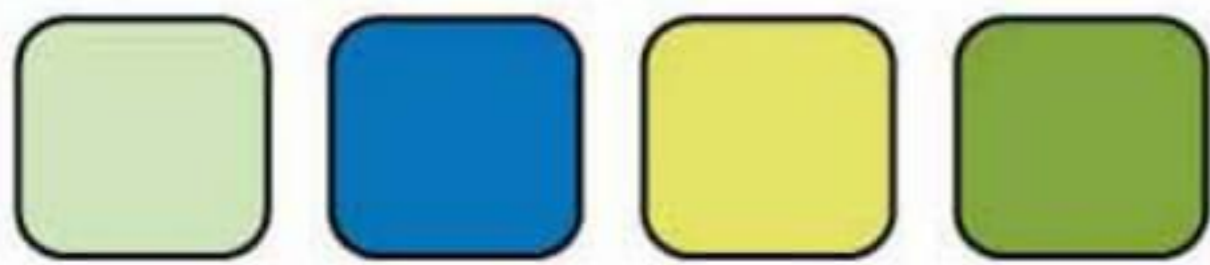
Roofing & Cladding, side and end laps (Special "U" Shape strip available for double seal on end laps), joining single skin rooflights

COMPOSITION: Blend of cross-linked strip or bead to form a roll, with paper backing

Application: By hand direct from roll. Apply firmly to one joint surface, remove backing paper, press other surface firmly onto strip face

Size: Thickness 2.5 mm
Length 19 mm
Width 9 mm

Our Standard Colours:



The colours shown above are standard colours available for cladding. However these colours may vary in shades as per the product available in stock, the product available in stock, hence need to confirm with Ralco before finalisation of order.

STAINLESS STEEL AND GI SELF TAPPING SCREWS

Application : Fixing of Sandwich Panels
Fixing of Single Skin Sections



TYPE "B": Thread of 1,81 - Flat end

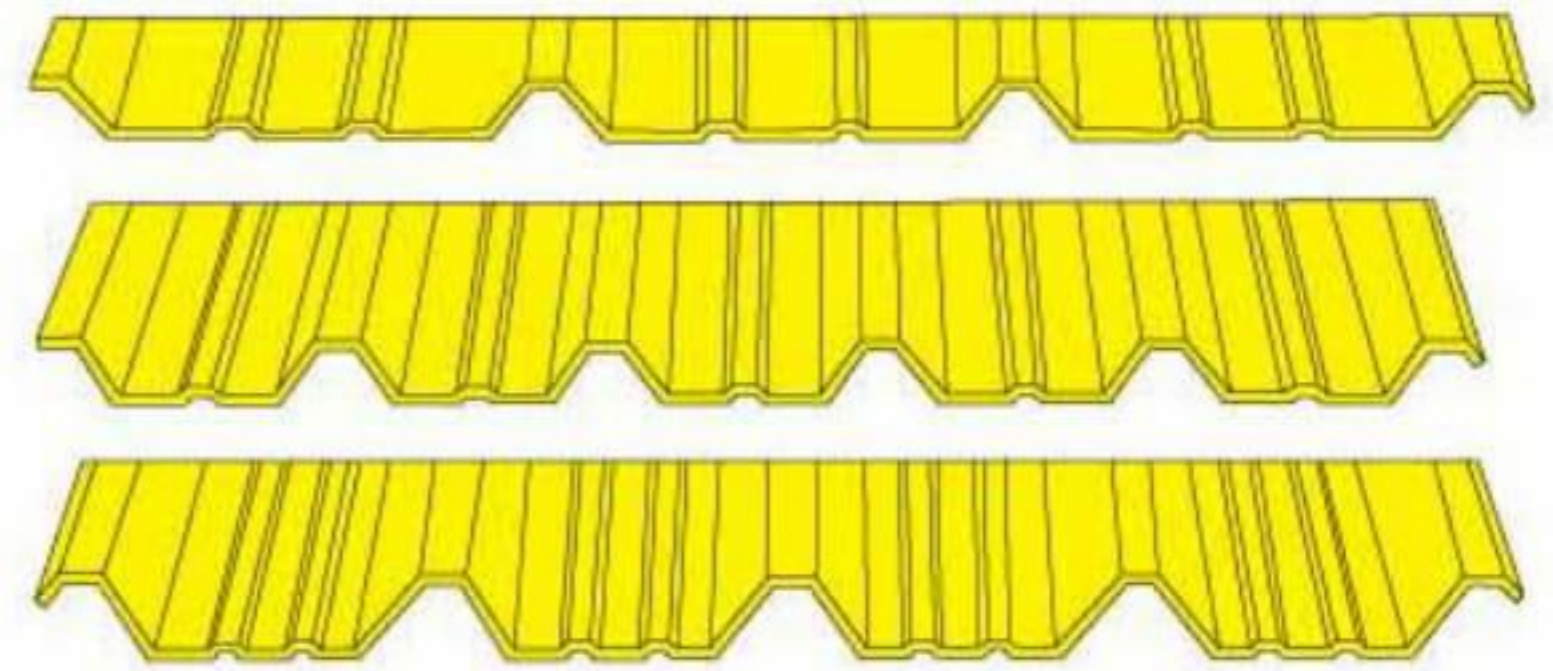
On Steel pulins exceeding 3 mm thickness
Screw with Ø 19 mm washer
6,3 x 20 mm
6,3 x 80 mm
6,3 x 110 mm



SCREW CAP

Coloured plastic caps to fit hexagonal head of the screw & cover washer,

GRP TRANSLUSCENT SHEETS



GRP Translucent Sheets are contact moulded to any profile using clear UV stabilized Polyester Resins reinforced with powder bonded "E" Grade Fibreglass Mats.

Particular care is taken to see that there are no air pockets in the laminate and the surface which is not in contact with the mould is top coated to provide closed surface which increases the life of Translucent Sheet. GRP Moulds used for manufacturing Translucent Sheets.

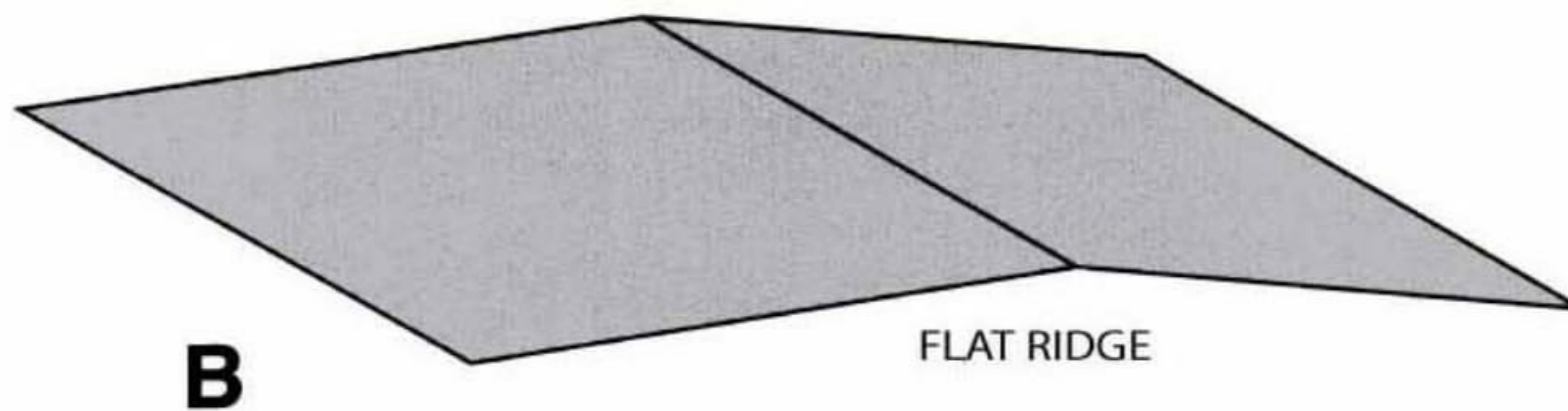
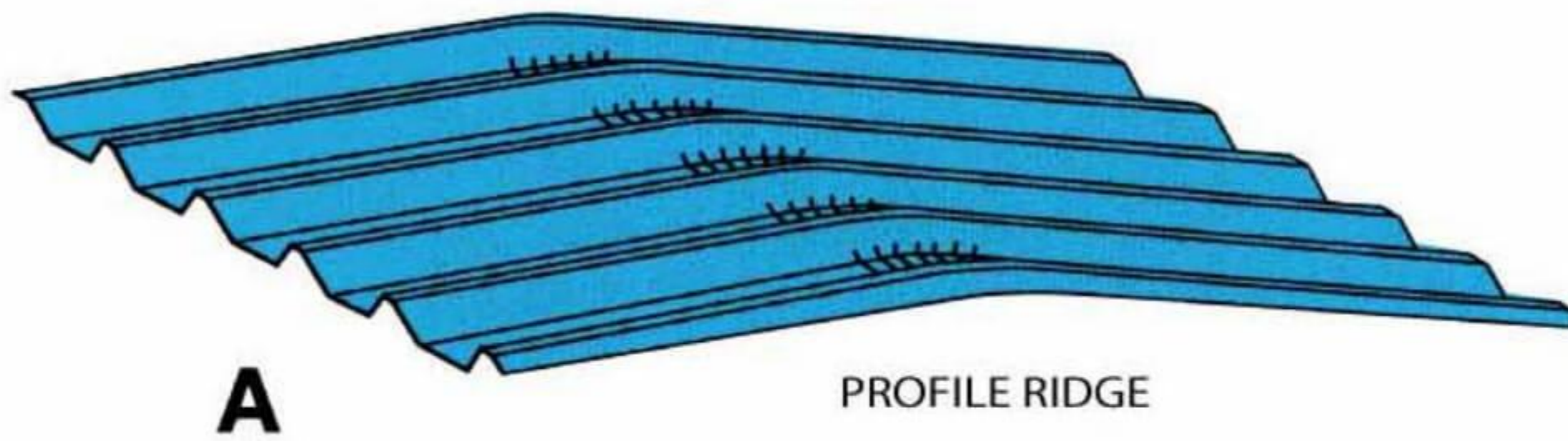
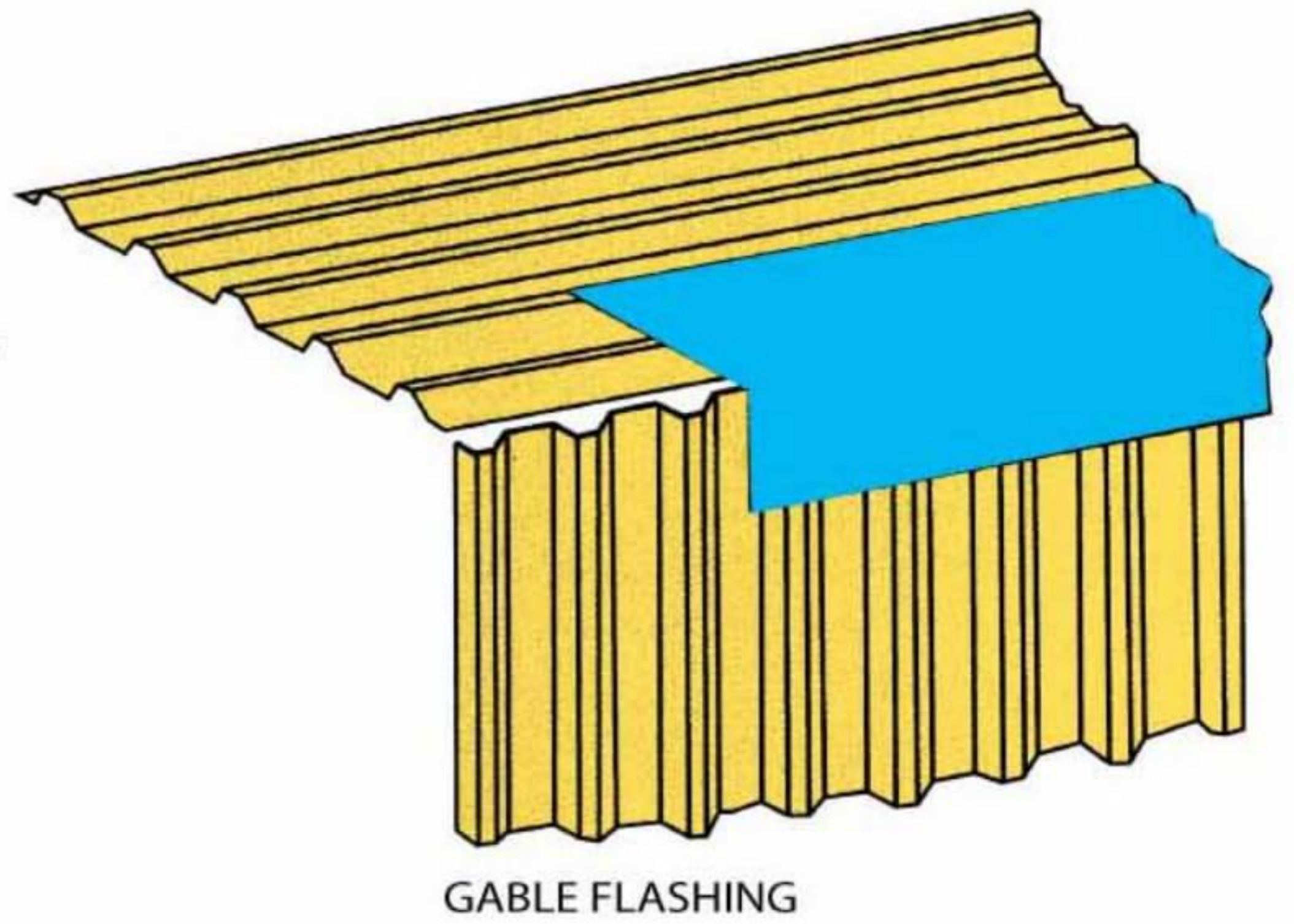
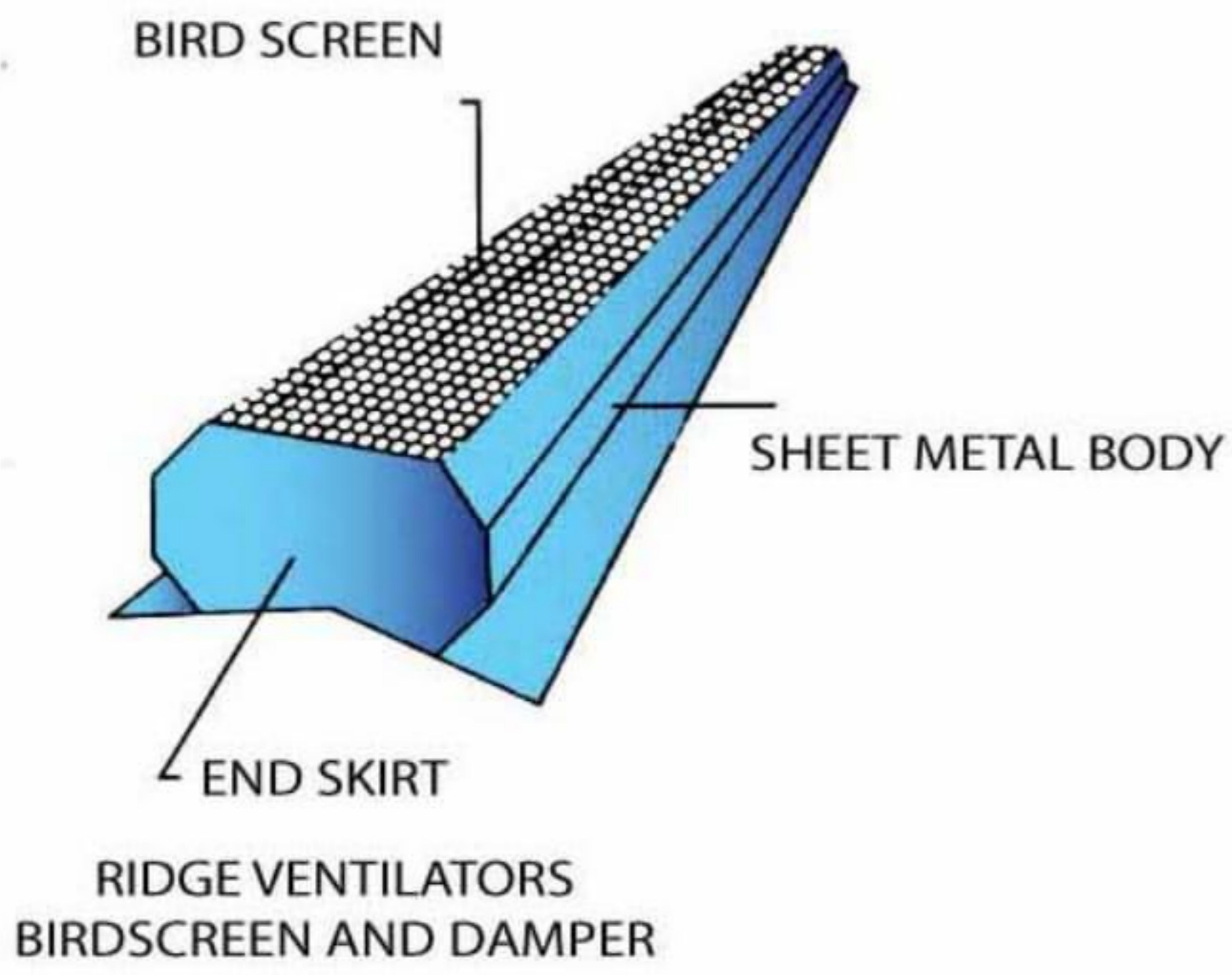
FILLER BLOCK



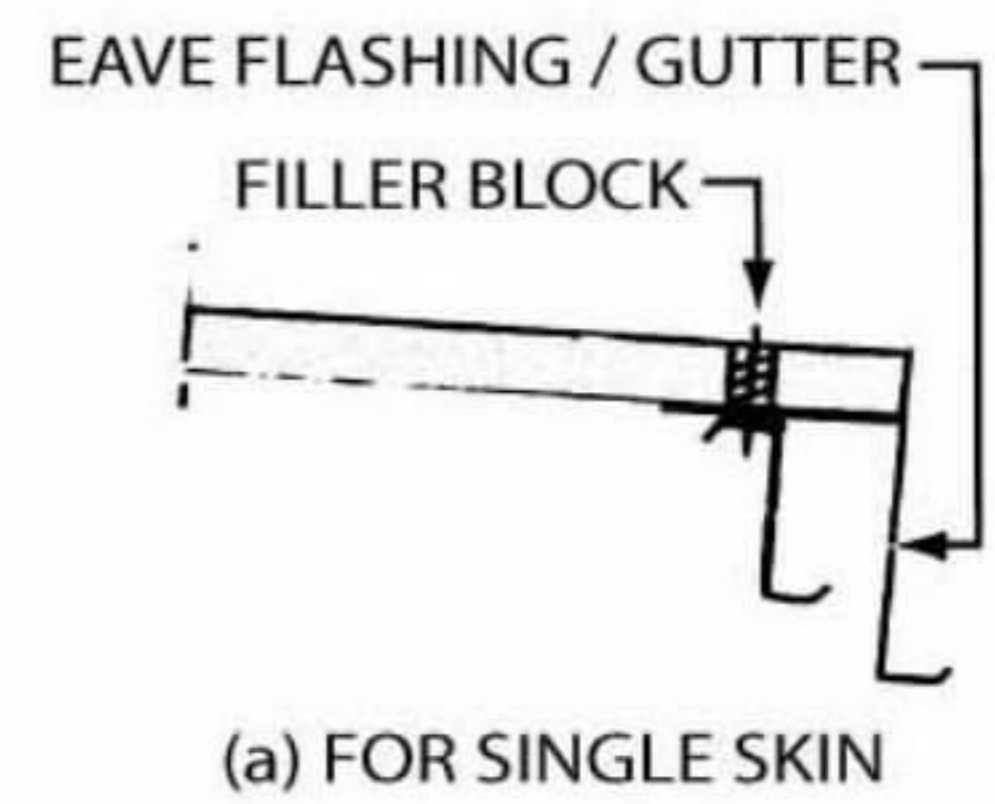
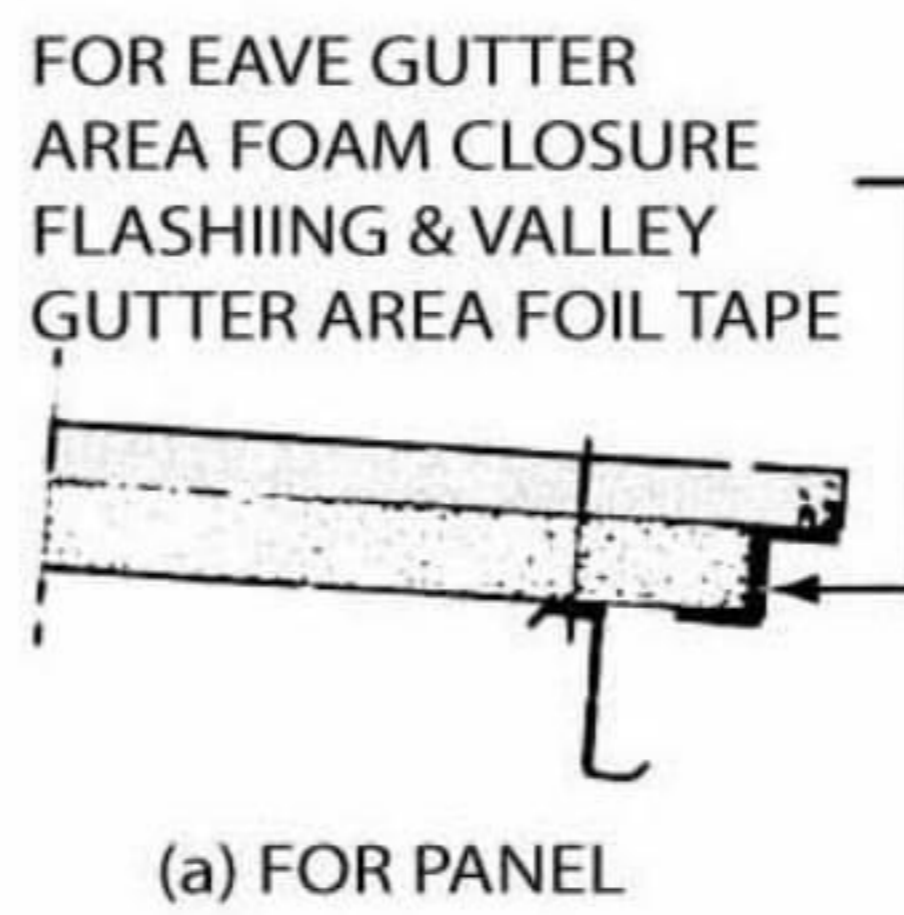
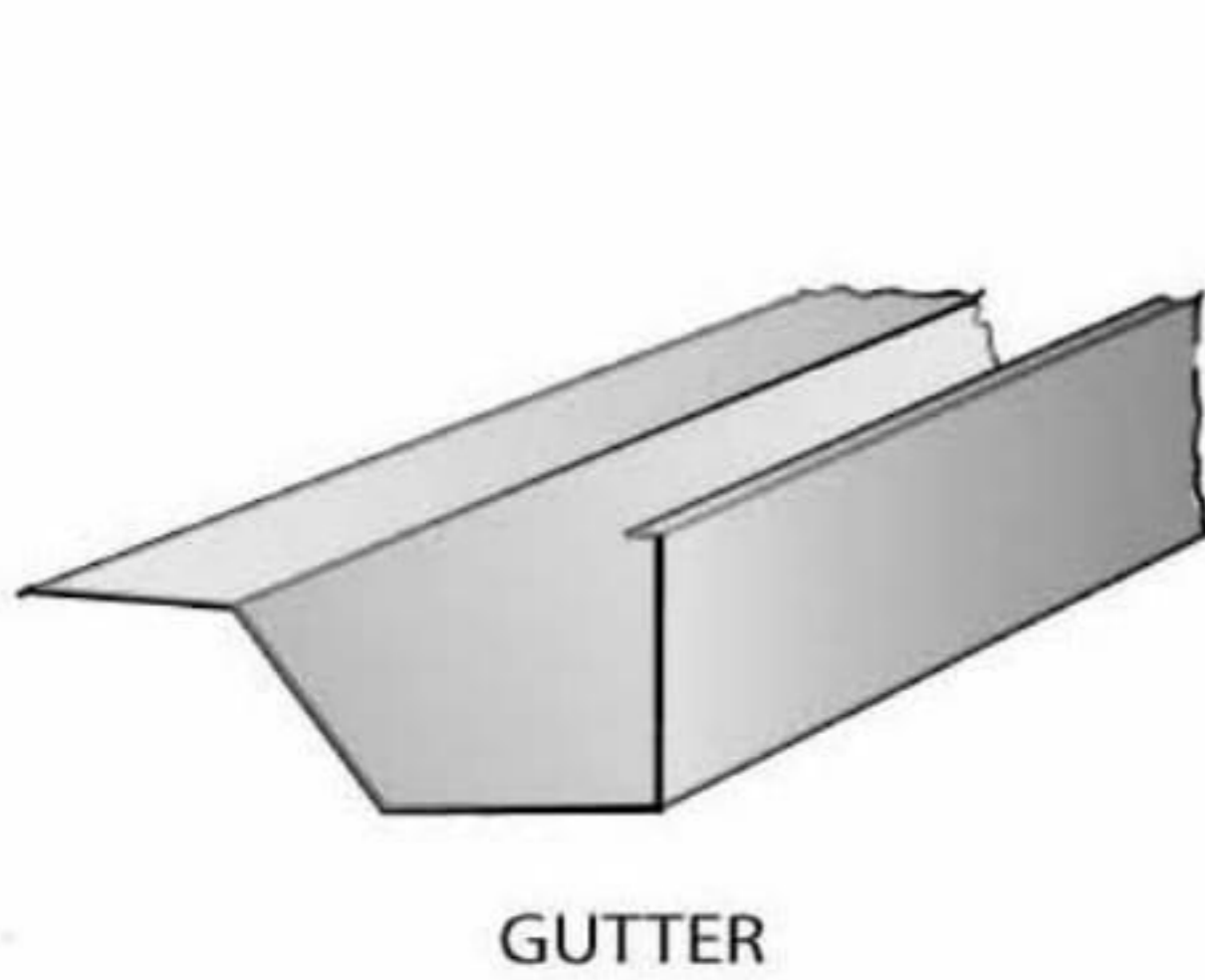
Sealing all roofing/ cladding profiles against water/water vapour ingress. Roof light fillers. Eaves and ridges fillers.

SHEAR RESISTANCE : 592 daN
TEAR RESISTANCE : 724 daN

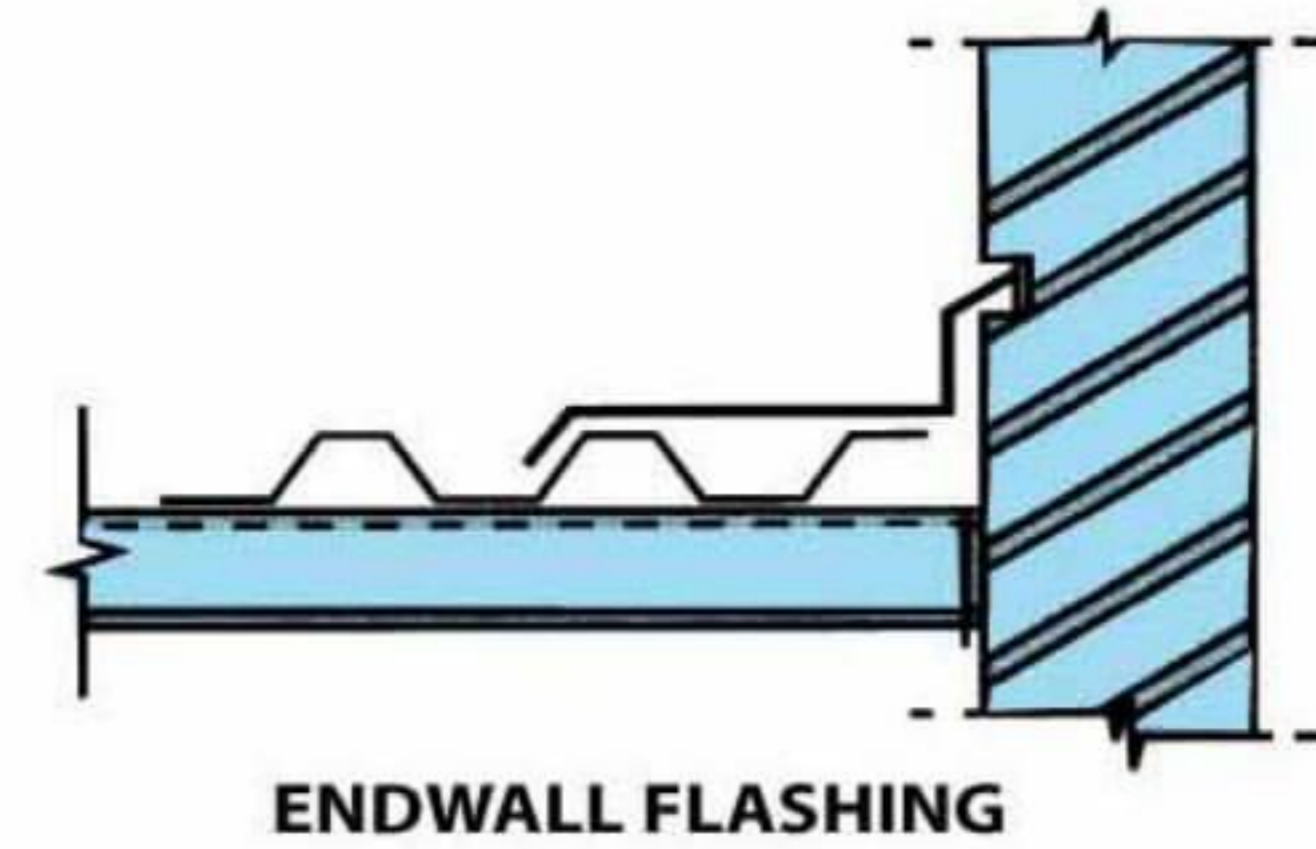
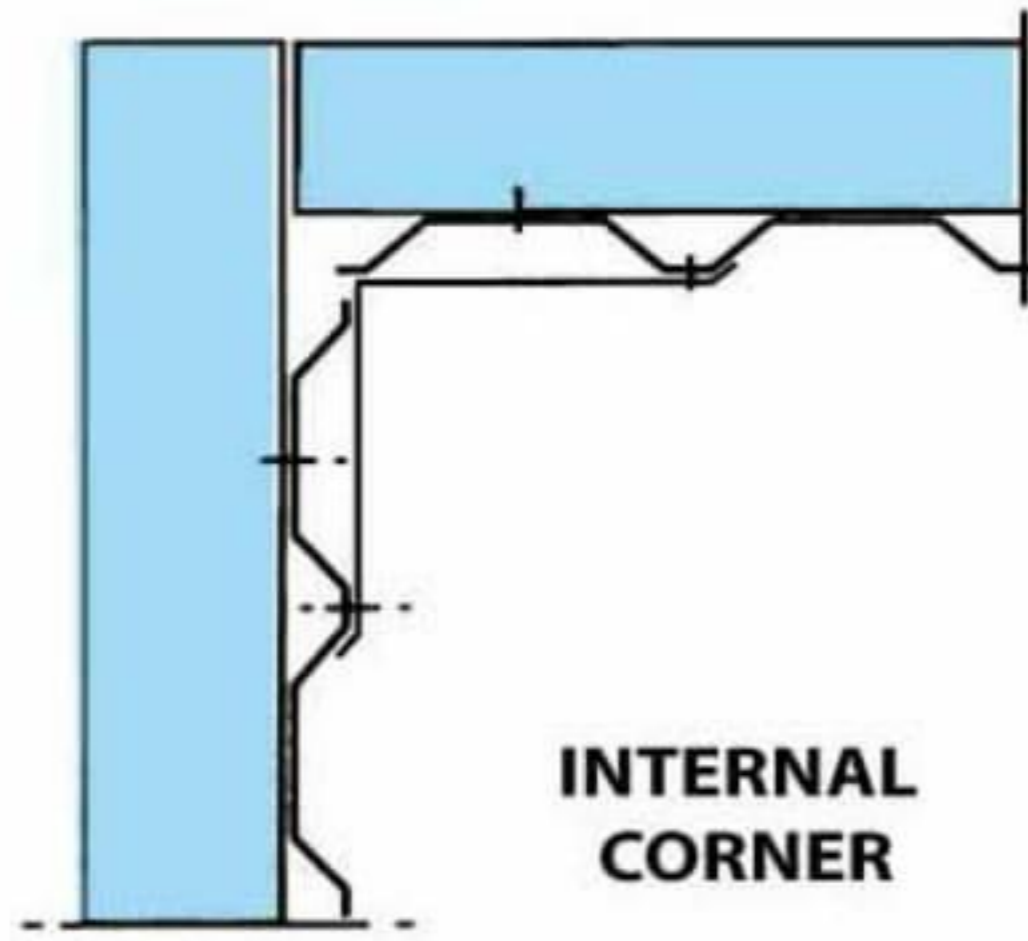
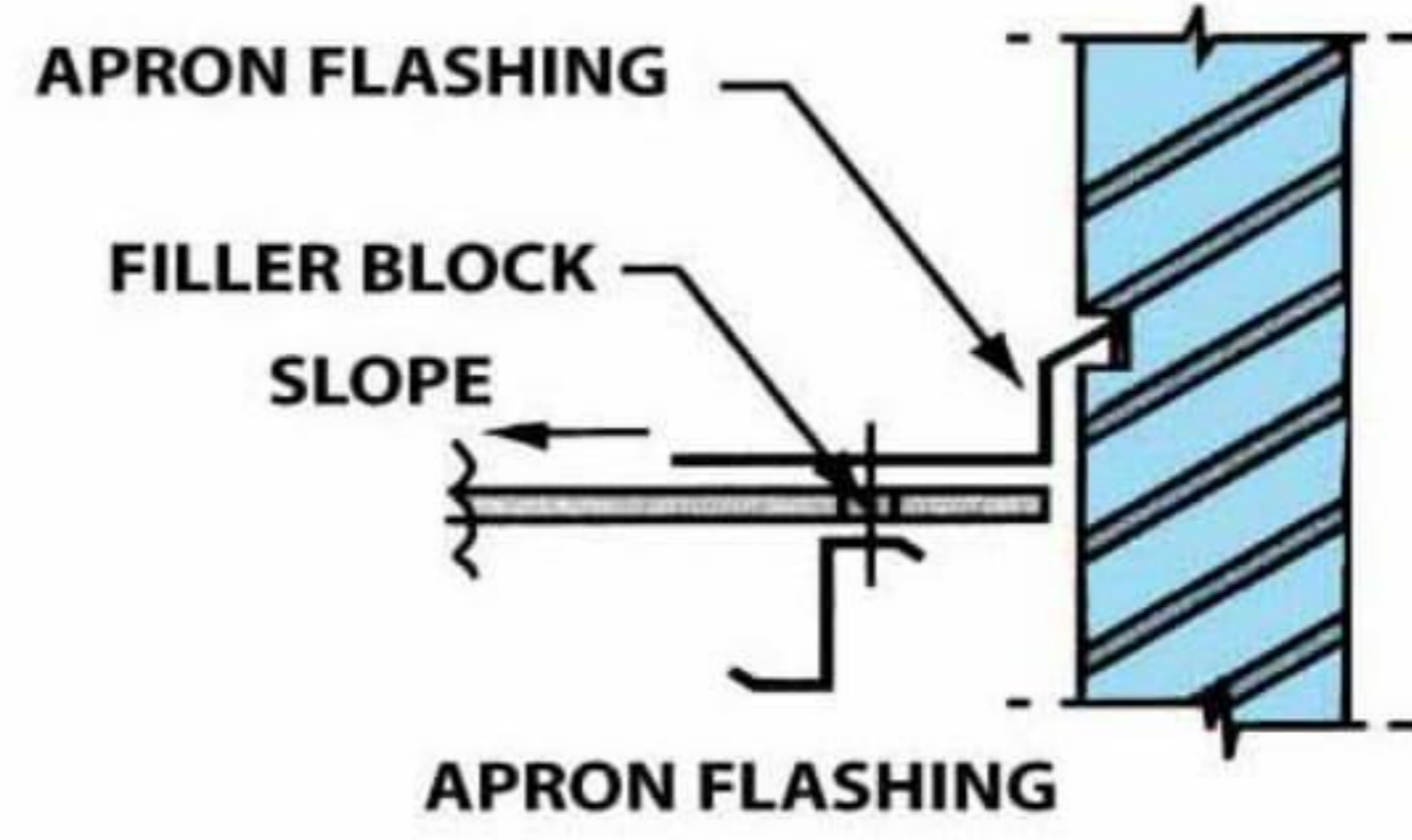
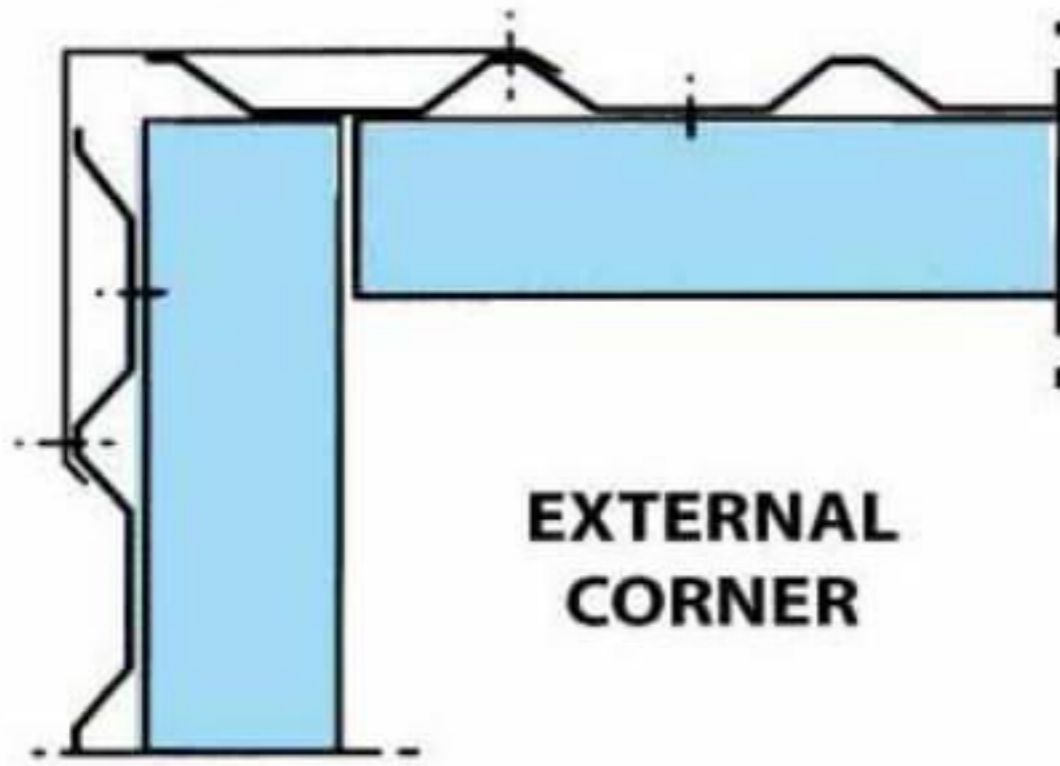
ACCESSORIES



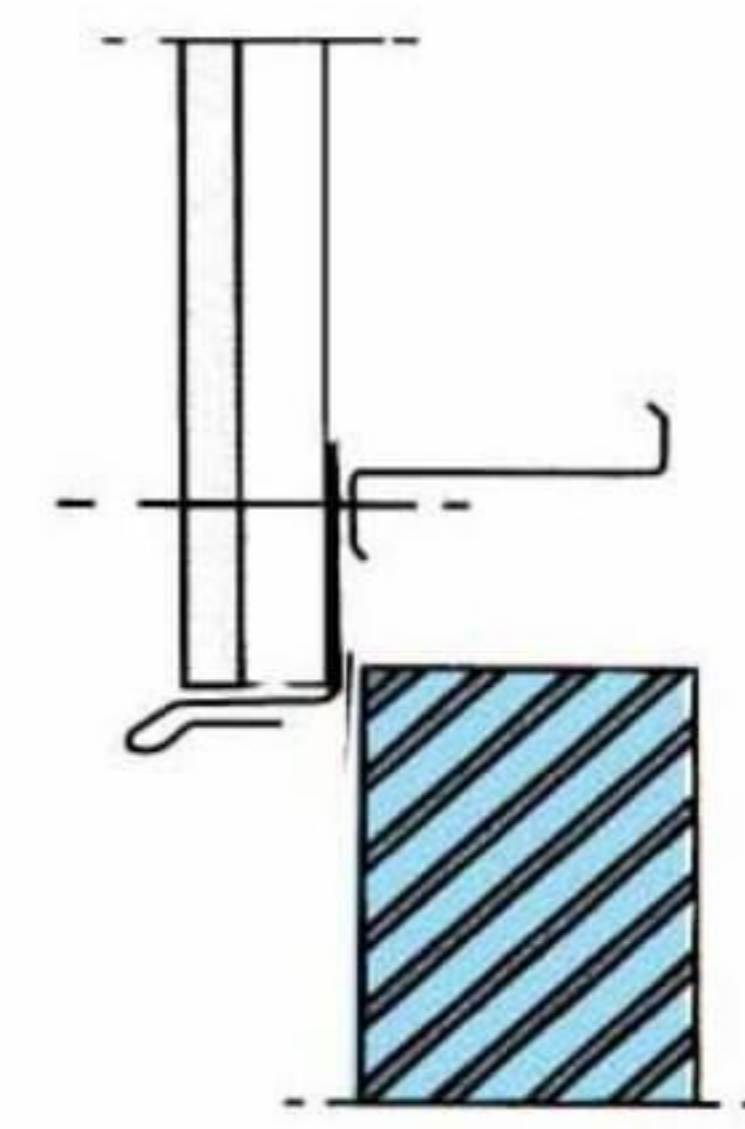
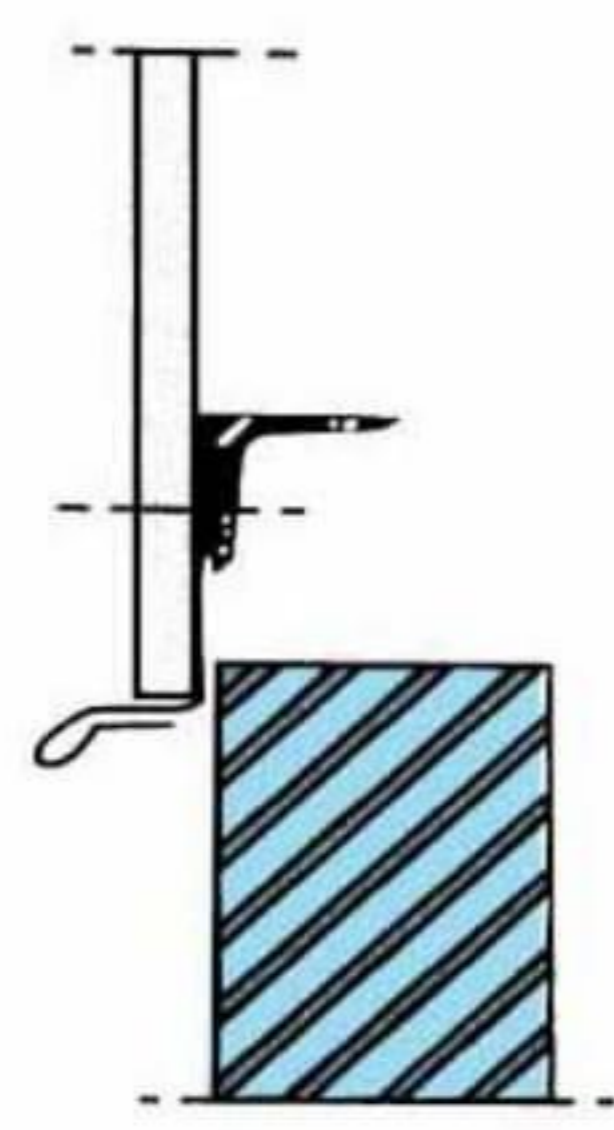
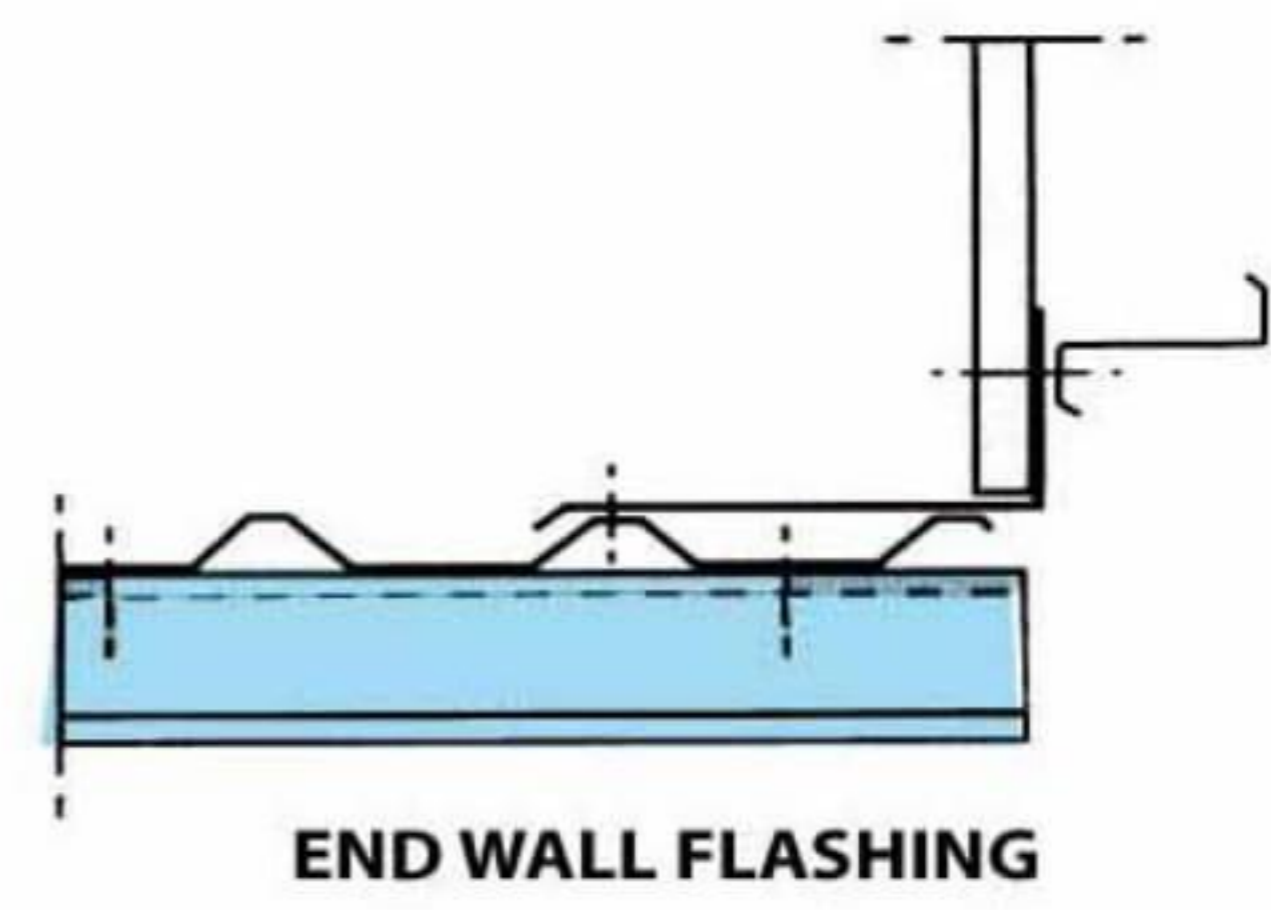
RIDGE FLASHING



FLASHINGS



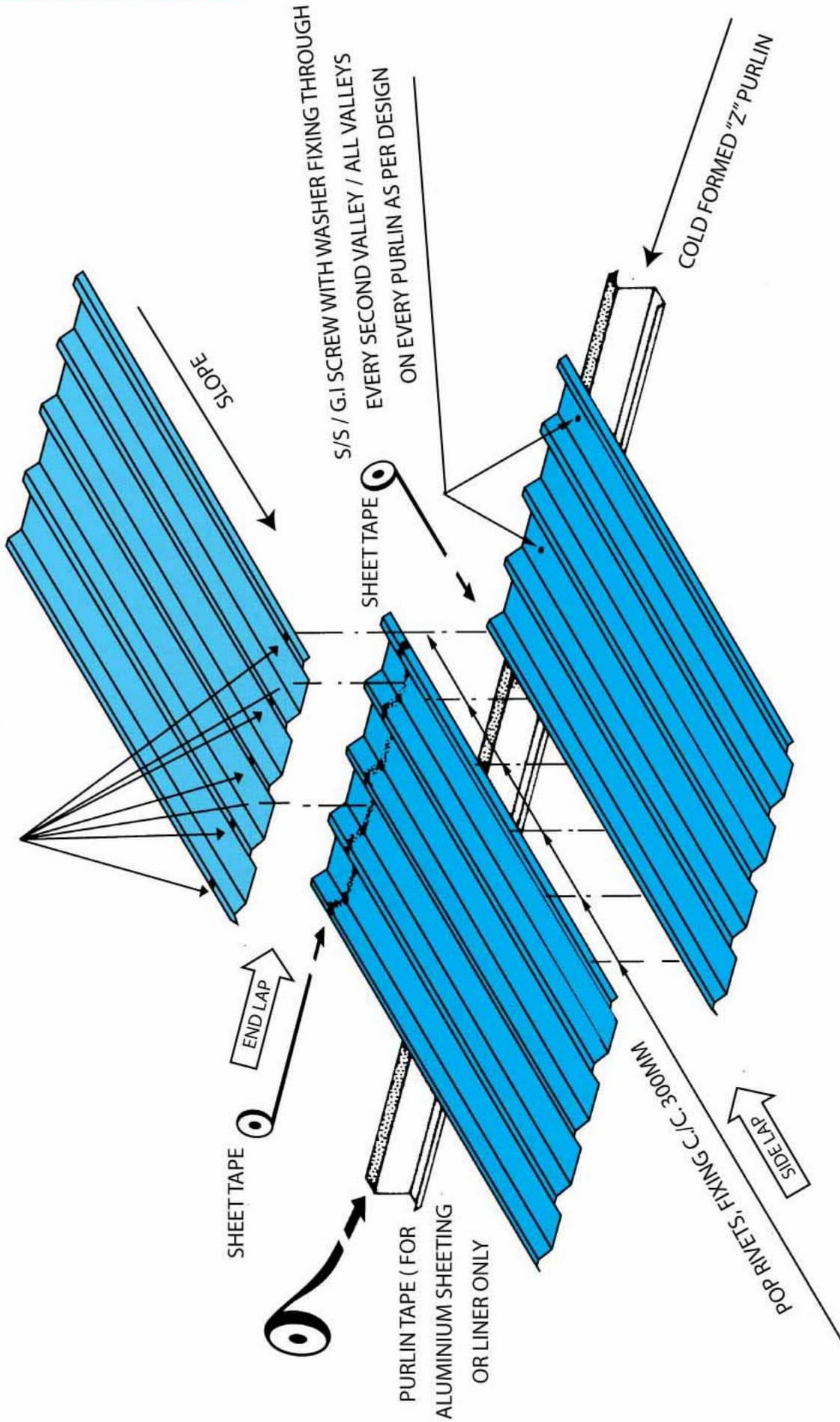
CORNER FLASHING



DRIP FLASHING

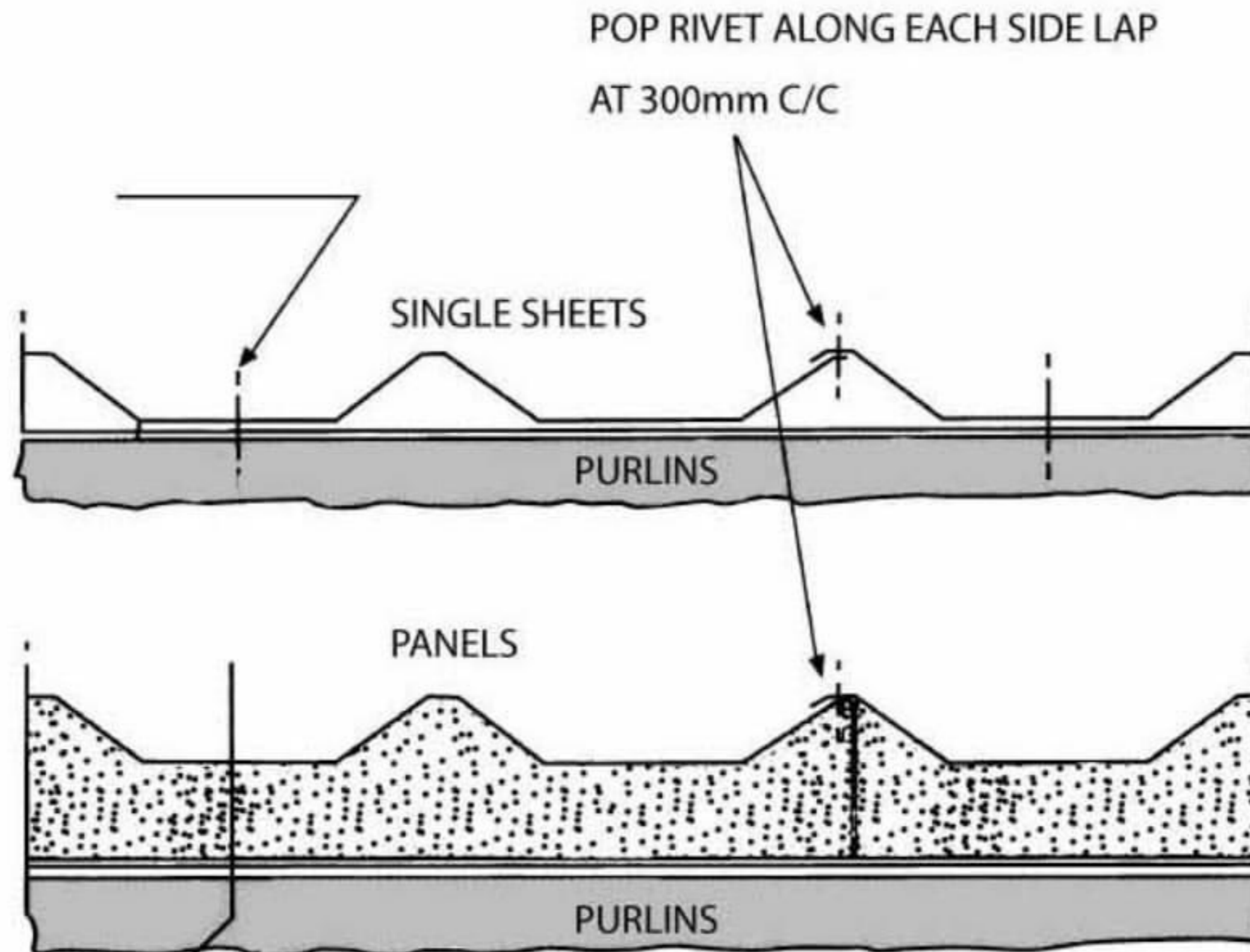
FIXING DETAILS

S/S G.I STEEL SCREW WITH WASHER
FIXING THROUGH EVERY CROWN / VALLEY ON END LAPS



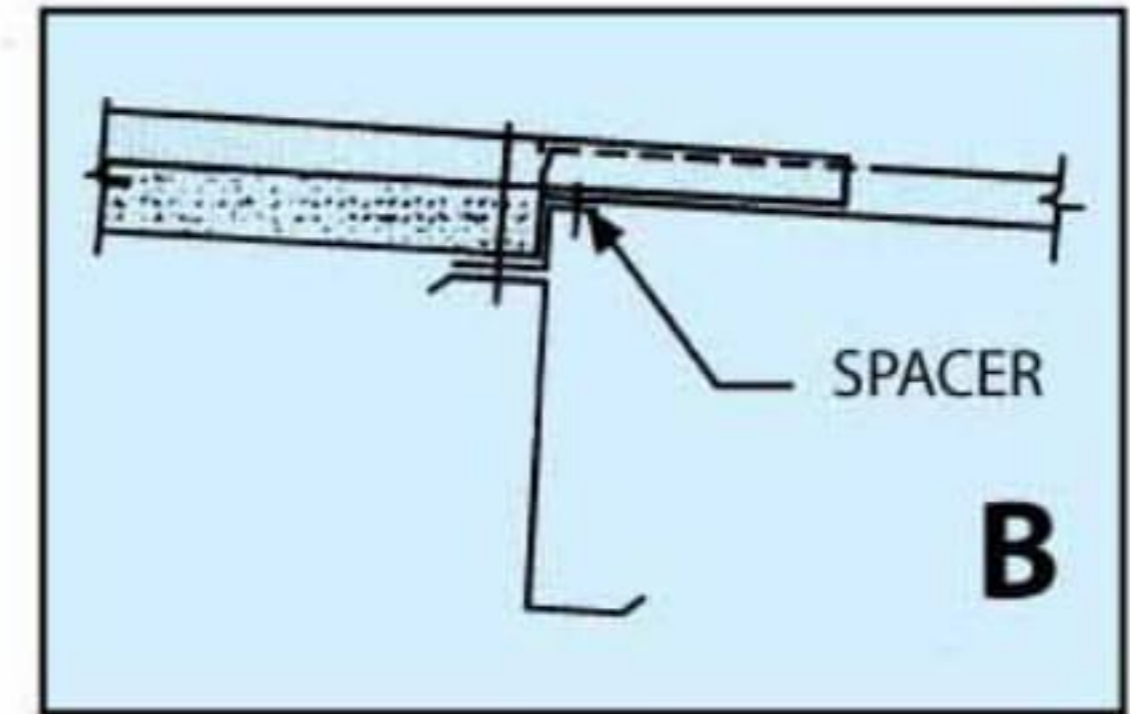
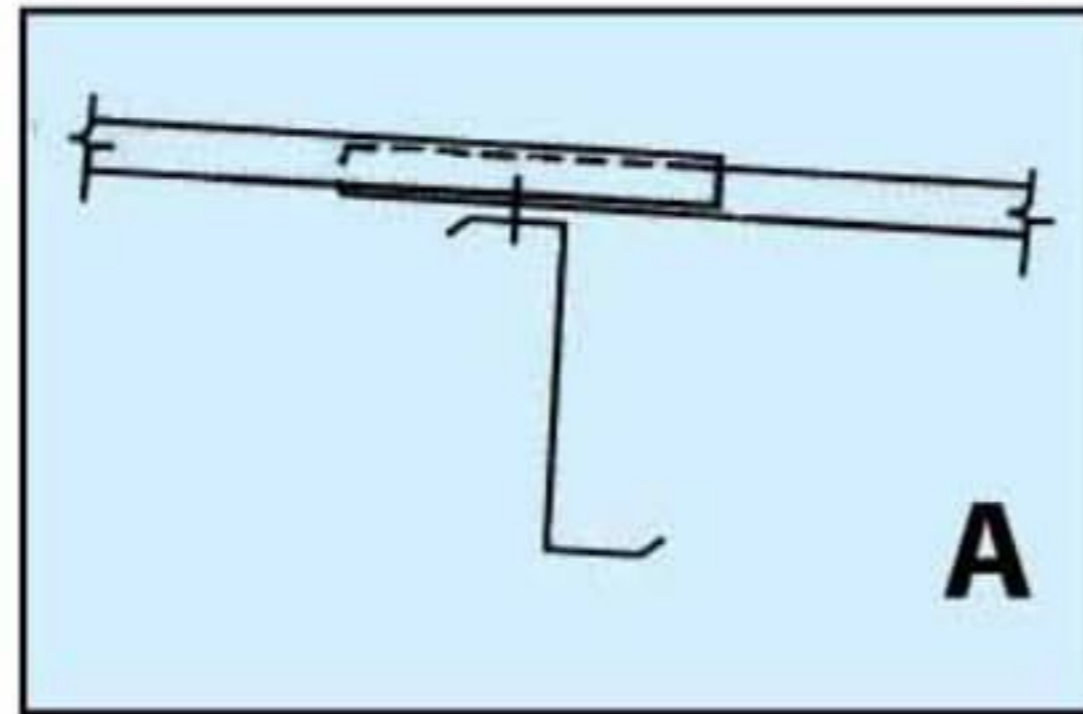
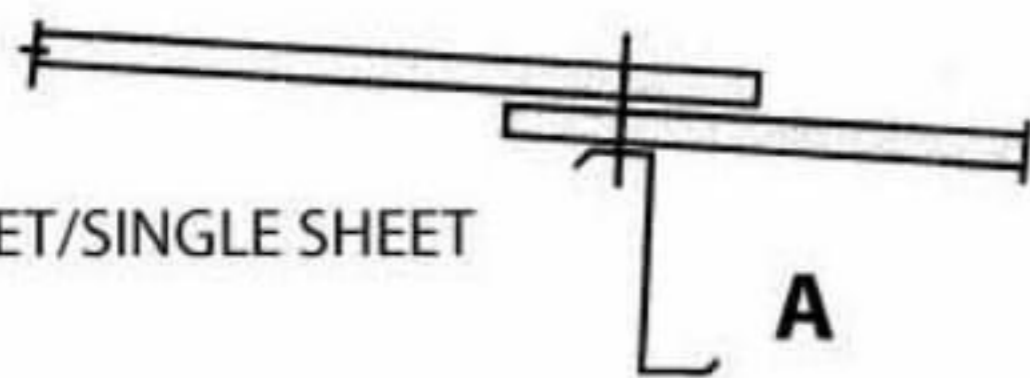
FIXING DETAILS

S/S/G.I. STEEL SCREW THROUGH EVERY SECOND VALLEY ON EACH PURLIN FOR ROOF & WALL AND EVERY VALLEY ON END LAPS

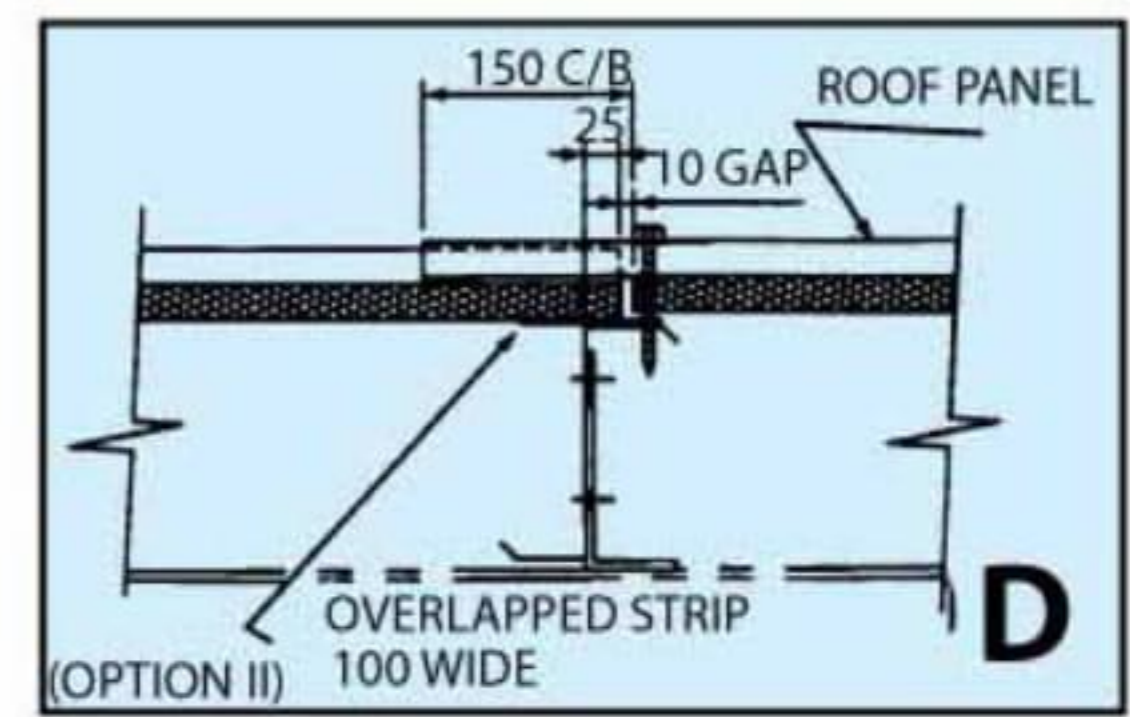
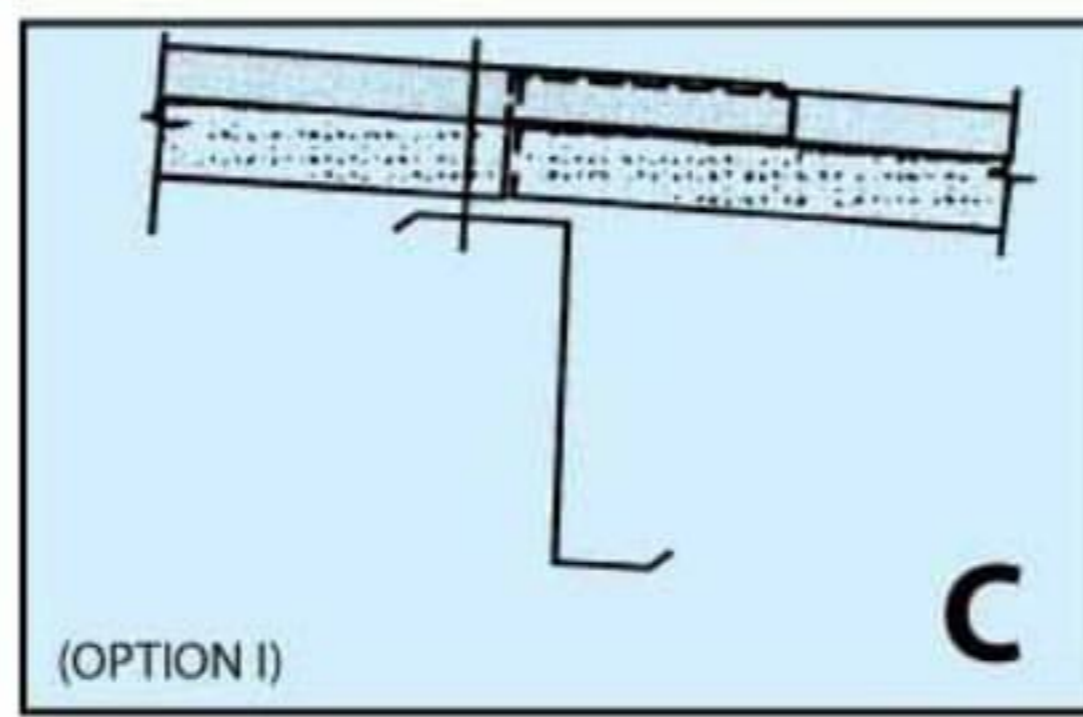
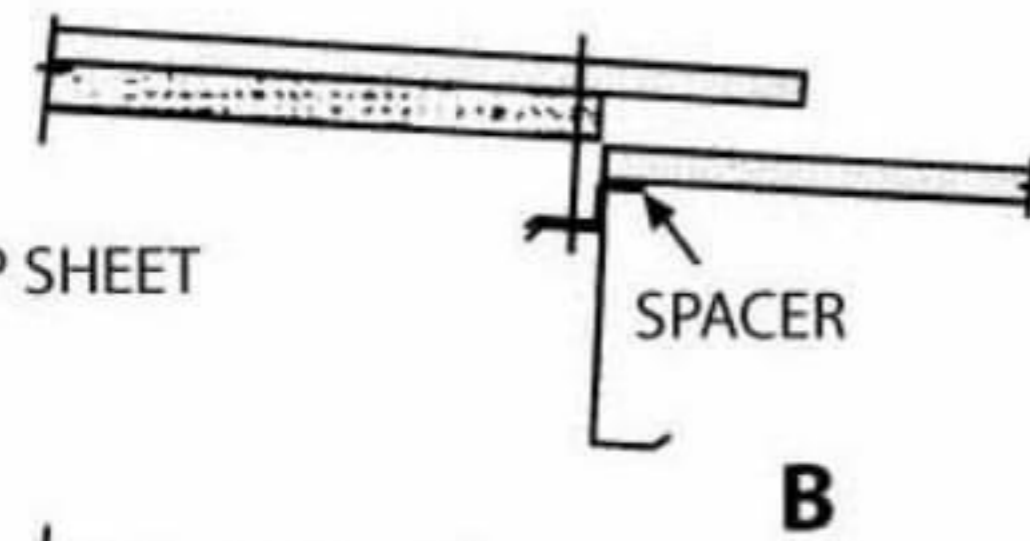


S/S/G.I. STEEL SCREW THROUGH EVERY SECOND CROWN/VALLEY FOR ROOF AND EVERY SECOND VALLEY FOR WALL ON EACH PURLIN, AND ON EVERY CROWN VALLEY ON END LAPS.

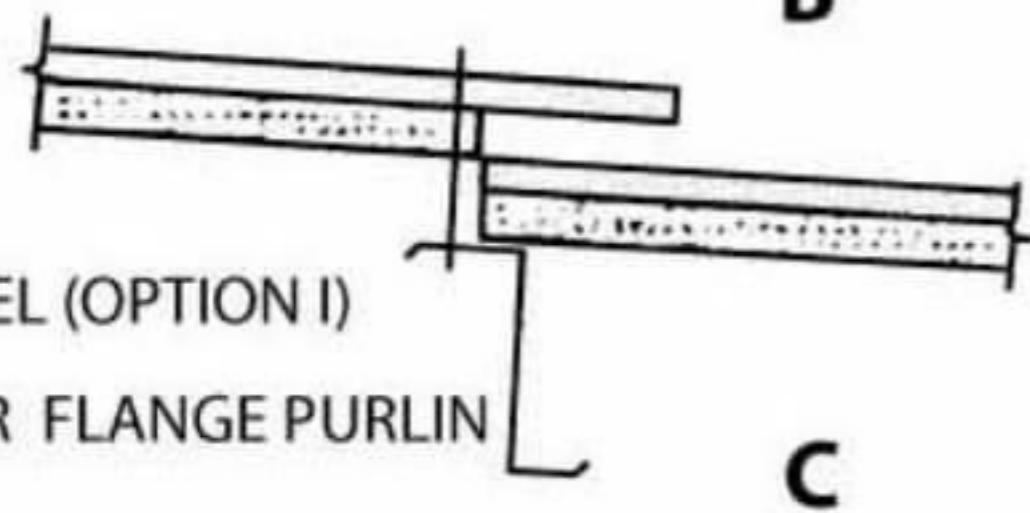
SINGLE SHEET/SINGLE SHEET



PURLIN/GRP SHEET

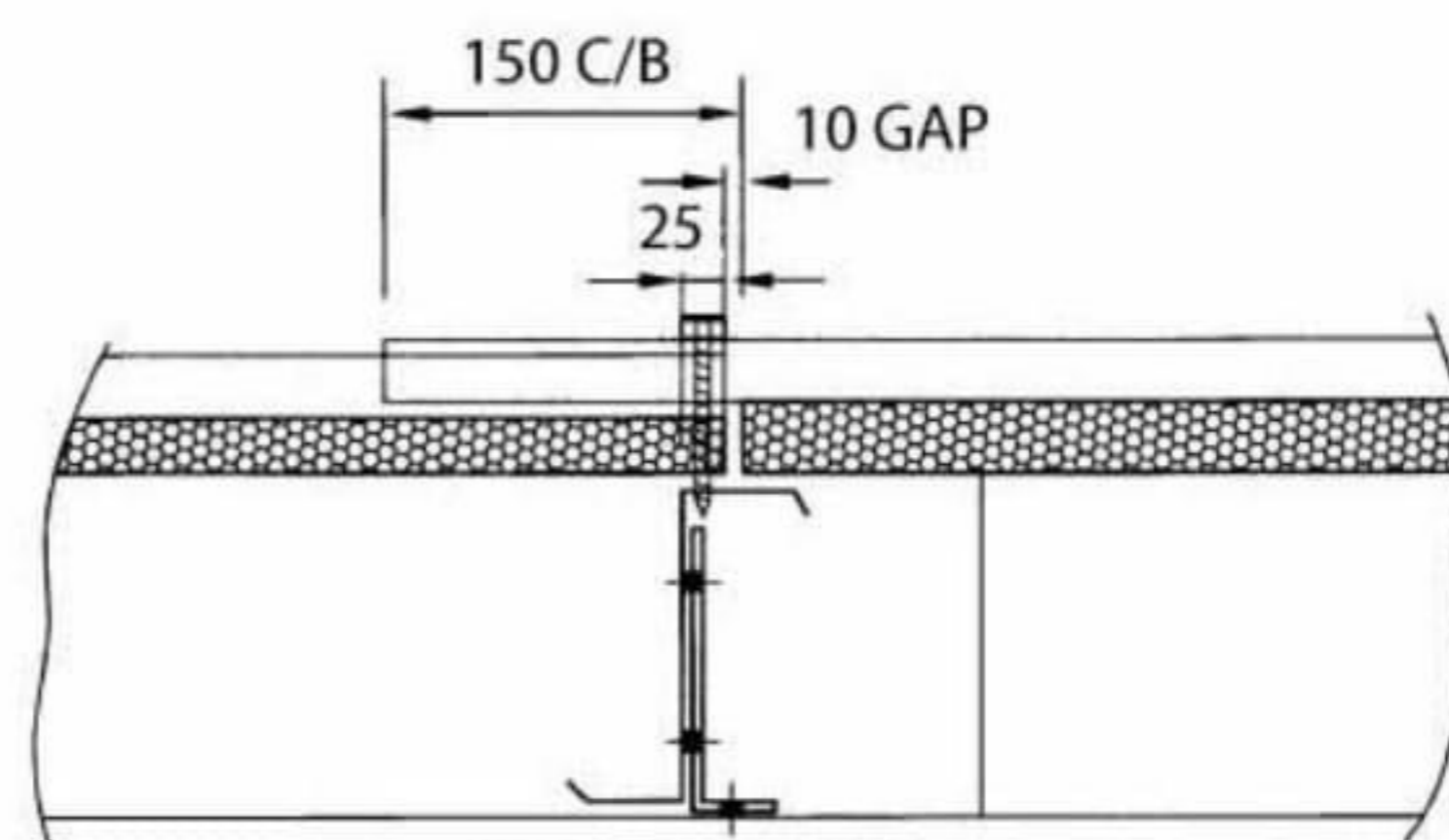
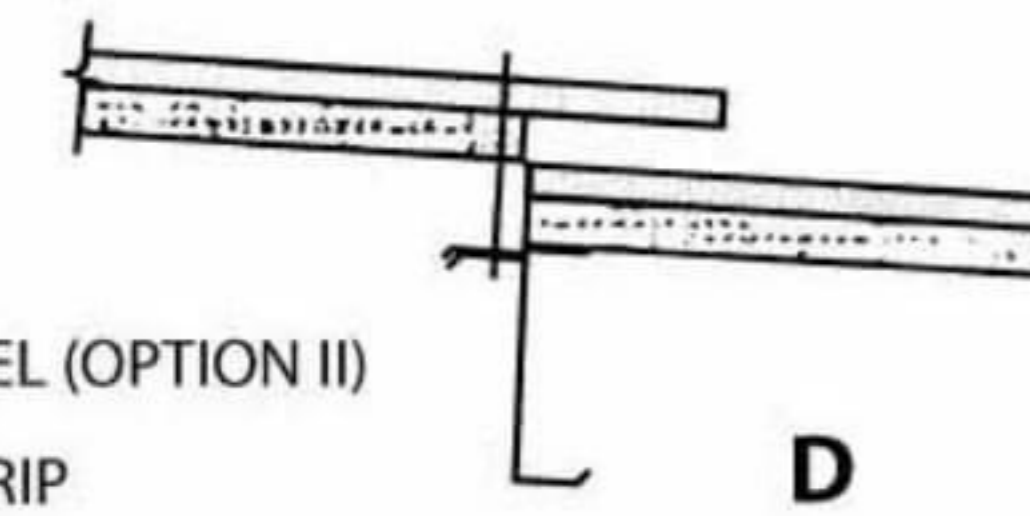


PANEL/PANEL (OPTION I) WITH WIDER FLANGE PURLIN



FOR ALUMINIUM PANELS

PANEL/PANEL (OPTION II) WITH G.I. STRIP



FOR G.I. PANELS



RALCO STEELS PRIVATE LIMITED

Plot No. 55, Door No.11-9-35/1, Jagannath Swamy Temple Road,
Daspalla Hills, Visakhapatnam - 53003, Andhra Pradesh (India)

FACTORY

Special Plot #1, Phase -II, Industrial Growth Center, Bobbili - 535 558,
Vizianagaram District. Andhra Pradesh, (India)

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projects@ralcosteels.com