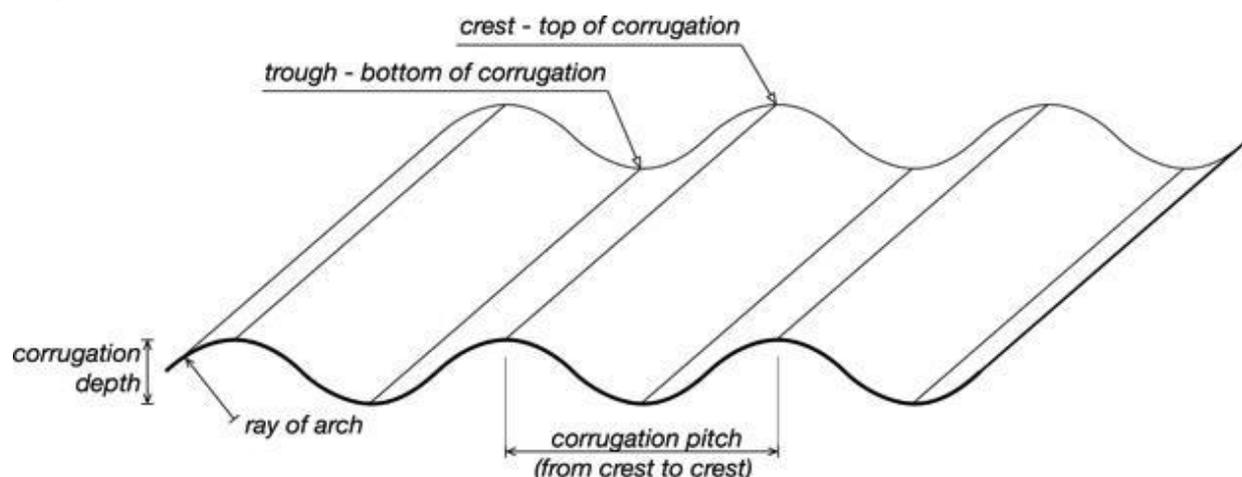


## CORRUGATED GALVANISED IRON (CGI) SPECIFICATIONS FOR ROOFING

Corrugated galvanised iron (CGI) sheets are very popular in all parts of the country, except in the high mountains. These sheets shall be properly anchored to each purlin/batten that supports them. Corrugated Galvanized Iron or Steel sheets are a lightweight roofing material made of thin sheets, stiffened by corrugations. Corrugations, such as waves, considerably increase the strength and stiffness of the lightweight material. Indeed, without these waves, the metal sheets are fragile and highly deformable. The steel used is mild steel for forming, which is galvanized to increase the durability of the metal sheets, and consequently allowing them to better withstand the weather.

Terminology of CGI sheet:



Specifications for CGI	Recommended for Roofing ( According to Nepal Standard <sup>1</sup> )
Minimum Thickness	<b>0.35 mm</b>
Zinc Coating	Hot dip galvanization with minimum <b>120 g/m<sup>2</sup></b> zinc on each side of sheet.
Approximately Weight per bundle	<b>55 kg</b>
Nominal Depth of Corrugation	<b>18 mm</b> (Tolerance +/- 1.5 mm)
Nominal Pitch of Corrugation	<b>76.2 mm</b> (Tolerance +/- 2 mm)
No of Corrugation	<b>½ + 10 + ½</b>
Width of Sheet	<b>875 mm</b> (Tolerance +/- 10 mm)
Length per bundle approximately <b>72 feet</b> .	
Each Bundle of CGI sheet have <b>different combination</b> : 12 sheets of 6 feet long; 10 sheets of 7 feet long ; 9 sheets of 8 feet long: <b>8 sheets of 9 feet long</b> ( most <b>commonly</b> used for house roof ); 7 sheets 10 feet long ; 6 sheets 12 feet long	
Approximate Price range per bundle in Nepal	6,000 - 6,700 Nepali Rupee ( <b>60 - 67 USD</b> )

<sup>1</sup> Nepal Standard for Corrugated Galvanised Iron: <http://nbsm.gov.np/file/download/file1712045347.pdf>

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**Tips for Purchasing CGI Sheets and Galvanized Steel Items:**

- Fixings/fasteners and sealing washers must be made of galvanized steel, with similar zinc coating thickness → to avoid corrosion and breakage.
- Always verify the zinc coating thickness, by using a coating thickness gauge – magnetometer → supplier may want to sell electro-galvanized steel which looks like hot-dip galvanized but can have a zinc coating thickness 10 times thinner.
- If the price for items made of galvanized steel seems expensive, you should check if the items are not made of stainless steel (3 times more expensive than galvanized steel) → use a magnet, if the magnet does not stick to the item, then it is made of stainless steel.

**Health and Safety:** Ensure that handling staff are equipped with gloves and sturdy boots to prevent injury, and that a first aid package is available at loading and off-loading locations.

**Packing:** If they are being airlifted, bundles of sheets of CGI should be packaged in a sturdy wooden box. This is especially critical if the CGI is under slinging with a helicopter or being stored on or near an airfield.

**Storage:** Bundles shall be so laid that the corrugations run in the same directions in every course. One end of the stack shall be raised by 100 mm to 150 mm to allow water flowing freely. If the sheets are not to be used immediately, these shall be stacked under roof cover.