

# Technical Data Sheet

## ONDULINE® HR

Lightweight corrugated roofing sheets.

ONDULINE®

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### Product Definition

ONDULINE HR is a corrugated roofing sheet. It's reliable and well-known solution for a wide range of applications. With its high quality, ONDULINE HR system meets the international standards related to environment and sustainability.

### Technical Data

|  |                                    |
|--|------------------------------------|
| Length   | 200 cm - (L)                       |
| Width  | 97 cm - (W)                        |
| Thickness                                      | 3 mm - (t)                         |
| Height of corrugations                         | 38 mm - (H)                        |
| Pitch of corrugation                           | 95 mm - (P)                        |
| Net coverage                                   | 1,61 m <sup>2</sup>                |
| Weight/ m <sup>2</sup>                         | ±3,6 kg                            |
| Weight/sheet                                   | ±6,8 kg                            |
| Corrugations                                   | 10                                 |
| Bending under downward load                    | Category R: ≥1400 N/m <sup>2</sup> |
| Impact strength                                | Category R: 400 mm                 |
| Tear resistance                                | Category R >200 N                  |
| Water permeability                             | PASS                               |
| Water permeability artificial ageing behaviour | PASS                               |
| Tear resistance artificial ageing behaviour    | >200 N                             |
| Coefficient of thermal expansion               | $\alpha < 100 \times 10^{-6} 1/K$  |
| Reaction to fire EN 13501-1                    | E                                  |
| Resistance to external fire                    | Froof                              |

### Available colors:

Onduline ® sheets are produced in red, brown and green colors.

### Tools:

The sheets can be cut with a cutter, hand or power saw and nailed with hammer or screwed with power drill.

### Packaging:

Qty/pallet : 350 sheets  
Weight/pallet : ±2345 kg

### Where to use and Properties

- Onduline ® offers roofing solutions to a wide range of buildings including Residential, Commercial Buildings and Resorts, Agricultural, Public Access Buildings, Leisure housing and DIY projects and are used in more than 120 countries around the world.
- Onduline ® is a durable material which can be used for roofing and wall cladding.
- Weighing less than 4kg/m<sup>2</sup>, Onduline® sheets are really practical to install: only a hammer is needed for securing the sheets and a band saw for cutting them down to size. Manufactured from recycled fibers, Onduline® sheets contain no asbestos and therefore present no health risk either in installation or when the building is in use.
- Manufactured through an environment friendly technology, Onduline® roofing sheet is a flexible and cost effective product that provides weather protection, sound and thermal insulation. It is completely waterproof, cannot rust. It resists most chemicals and corrosion.
- Made from most advanced technology, Onduline® sheets have a very low heat conducting coefficients: they provide a perfect seal integrity in all climates and insulate against the noise of heavy rainfall.
- Lightweight and flexible, Onduline® sheets are specified by many architects in regions of the world exposed to the risk of hurricanes.

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**Onduline®**  
AVRASYA A.Ş.

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### General Application Steps

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1. Start fixing sheets at the opposite end of the roof from prevailing winds.
2. The first row of sheets should extend over the bottom purlin and the eaves so that rainwater can drain into a gutter or beyond the wall.
3. Sheets overhang at the eaves should be max. 7 cm
4. Sheets should be overlapped by the next sheet in the run by at least one corrugation ('side laps').
5. For the side overlap use minimum 2 corrugations in high rainfall areas.
6. Cut a sheet in half vertically to start alternate sheet courses forming a broken bond sheet pattern.
7. Nail sheets always through the top of every corrugations at the eaves and sheet overlaps with genuine ONDULINE® fixing accessories.
8. Minimum end overlap should be 15 cm.
9. Protect verges against wind.
10. Use a ridge plank to support the ridge.
11. The ridge element should be fastened at each corrugation of the overlapped sheet.
12. Lay ridge element with a minimum overlap of 14 cm.

### General Warnings

1. Min. pitches: 15% (9°)
2. When installing Onduline sheets, Onduline® recommends walking on a plank to avoid potential damage to the sheets.
3. ONDULINE® universal screws are designed to be used on wood but can be used also on light steel framing.
4. Use only genuine ONDULINE® fixings.
5. Use of 20 nails or 11 screws minimum per sheet is recommended.
6. Think safety first. Wear PPE

### Storage

Protect material from heat and direct sunlight. Do not stack pallets.