

TARC Corrugate Specifications

1. General

This section relates to the supply and fixing of TARC corrugate, complete with accessories. This section must still be checked and customised to suit the project being specified, by removing any other irrelevant details and adding project-specific details.

1.1. Related work

Refer to 4161 UNDERLAYS, FOIL AND DPC for underlays, foils and DPC. Refer to 7411 RAINWATER SPOUTING SYSTEMS for rainwater disposal.

1.2. Abbreviations and definitions

The following abbreviations apply specifically to this section:

- BMT Base metal thickness
- NZMRM New Zealand Metal Roofing Manufacturers Inc
- LBP Licensed Building Practitioner

2. Document

2.1. Documents

Refer to the general section 1233 REFERENCED DOCUMENTS. The following documents are specifically referred to in this section:

- NZBC C/AS1-AS7 Protection from fire
- NZBC E2/AS1 External moisture
- NZBC G12/AS1 Water Supplies
- AS/NZS 1170.2 Structural design actions - Wind actions
- AS 1397 Continuous hot-dip metallic coated steel sheet and strip - Coatings of zinc and zinc alloyed with aluminum and magnesium
- AS/NZS 2728 Prefinished/pre-painted sheet metal products for interior/exterior building applications - Performance requirements
- NZS 3604 Timber-framed buildings
- NZMRM COP NZ Metal Roof and Wall Cladding Code of Practice.

2.2. Manufacturer/supplier documents

Manufacturer's and supplier's documents relating to this part of the work: The Architectural Roofing Company Ltd. literature, including: Product Guide Product Technical Statements Design Solutions.

- Web: www.tarc.co.nz Email: info@tarc.co.nz Telephone: 0800 50 2004
- Warranties: A sample roofing warranty showing terms and conditions, and information on maintenance requirements is available from The Architectural Roofing Company.

2.3. Warranty - manufacturer/supplier

Provide a material manufacturer/supplier warranty: 15 years (minimum) For Perforation 10 years (minimum) For Coatings - Provide this warranty on the, The Architectural Roofing Company Ltd. standard, Warranty Plus warranty form. - Commence the warranty from the date of installation.

2.4. Warranty - installer/applicator

Provide an installer/applicator warranty: 5 years for workmanship.

Provide this warranty on the installer/applicator standard form. - Commence the warranty from the date of installation.

3. Requirements

3.1. Qualifications

Roofers to be TARC recommended Installers

3.2. No substitutions

Substitutions are not permitted to any specified TARC products, or associated components and products.

3.3. Fixings, wind

Use the fixings appropriate for the design loads of this site as required by NZS 3604 and AS/NZS 1170.2. Allow for specific loadings at corners and the periphery of the roof, where localised pressure factors apply. Contact The Architectural Roofing Company Ltd. for advice.

3.4. Spread of fire

To NZBC C/AS1-AS7, 5.8.2 a) Exterior Surface Finishes.

3.5. Drinking water

Roofing for collecting potable water to NZBC G12/AS1.

3.6. Co-ordinate

Co-ordinate to ensure substrate and preparatory work is complete and other work programmed in the order required for access and completion of the roof. Ensure that all necessary members are positioned so that flashings can be fastened at both edges through the roof profile or cladding to the primary structure.

3.7. Performance

Install roofing material and associated flashings and accessories to form a weather tight and durable system.

4. Products/materials

4.1. Galvanized Steel, Unpainted

Formability steel sheet, G550 for roll forming 03 G300 for flashings, coated to AS 1397.

4.2. Hot-Dipped Aluminum/zinc coated steel

Formability steel sheet, G550 for roll forming 03 G300 for flashings, coated to AS 1397.

4.3. Pre-finished Hot-Dipped Aluminum/zinc coated steel

Formability steel sheet, G550 for roll forming 03 G300 for flashings, coated to AS 1397.

4.4. Pre-finished Hot-Dipped Aluminum/zinc/Magnesium coated steel

Formability steel sheet, G550 for roll forming 03 G300 for flashings, coated to AS 1397.

4.5. Aluminium

Aluminium alloy series 500 H34 for flashings or H36 for roll forming to suit application.

4.6. Flashings generally

To E2/AS1, 4.0, Flashings. Formable grade 0.55mm BMT for galvanized, aluminium/zinc-coated and pre-painted steel, and 0.90mm for aluminium (or 0.7mm for small aluminium flashings) to the same standards as the profiled sheets, notched where across profile. Where flashings are required but are not detailed, design to TARC's approved recommendations and designs.

5. Components

5.1. Fasteners generally

Minimum Class 4 and durability not less than the roofing material being fixed. Fastener material to be compatible with the material being fastened.

5.2. Fixing screws

To AS 3566. Screws appropriate to the roofing material and the supporting structure, as required by TARC and with a minimum Category class 4 or 5 durability and not less than the material being fixed. Screw into timber to penetrate by a minimum 30mm. Screw fasteners to be head stamped identifying the manufacturer and class. Use Alutite or stainless steel with aluminium based sheets.

5.3. Rivets

Sealed aluminium, minimum diameter 4mm, for use with zinc coated, zinc/aluminium coated or aluminium roofing.

6. Accessories

6.1. Wire Netting and Safety Mesh

6.2. Closure Strips

Non-bituminous compressible, profile foam strips to fit the sheet profile.

6.3. Lap sealing tape

Closed cell self-adhesive nitrile tape.

6.4. Sealant

Neutral curing silicone or MS polymer sealant as required by TARC and used as directed.

7. Execution

Conditions

7.1. Inspection

Inspect the roof framing and supporting structure to ensure that it is complete and fully braced ready for roofing and free from any misalignments or protrusions that could adversely affect the roofing.

7.2. Framing timber moisture

For transverse flashings the framing moisture content to be a maximum of 18%. Transverse flashings can be temporarily tacked in place and final fixing done when moisture content is acceptable.

7.3. Storage

Take delivery of and accept packs of roofing undamaged on delivery. Reject all damaged material. Stack roofing and accessories on clean, level areas of the site and protect from mechanical damage, wind damage and contamination. Loosely cover dry sheeting, with any wet sheeting fillet or cross stack to allow air to circulate. Remove strippable protective film, if applied, prior to prolonged exposure to sunlight.

7.4. Handling

Avoid distortion and contact with damaging substances, including cement. Do not drag sheets across each other and other materials. Protect edges and surface finishes from damage. Use soft, flat soled shoes when fixing and for all other work on the roof.

7.5. Separation

Place isolators between dissimilar metals and separate roofing from treated timber and cement based materials. Do not use unpainted lead sheet or copper in contact with or allow water run-off onto galvanized or Zinalume® materials.

8. Application

8.1. Set-out

Carefully set out the planned layout before fixing commences, to ensure true lines and the correct relationship to module, grid and roof features. Check during fixing to eliminate creep or spread.

8.2. End laps

Install in continuous lengths without end laps. Where end laps are necessary, install in accordance with the relevant TARC Roofing design details.

8.3. Lay roof underlay

Fit and lap roofing underlay where specified over the substrate. Lay underlay horizontally or vertically with a 150mm side lap, over sailing the spouting and/or gutters by 10mm.

8.4. Avoid damage

Take care to avoid damaging pre-finished roofing both during fixing. Wear only soft-soled shoes on the finished surface.

8.5. Marking and cutting profiled metal roofing

Use ink pen, chalk line or coloured pencil for marking roof sheets prior to cutting. Do not use black lead pencil for marking aluminium/zinc- based products. Cut by shear only, using nibblers or hand snips. Remove all cutting and drilling debris from the roof as soon as possible, ensuring that it does not contaminate gutters or lower surfaces.

8.6. Stop ends and downturns

Form stop-ends at the upper end of sheets. Form downturns at gutter line where the roof pitch is less than 8 degrees. Form using the required tools.

8.7. Valleys

Form valleys as detailed and required by TARC, ensuring the valleys provide a weathertight and neat appearance.

8.8. Install flashings and cappings

Flash neatly to all penetrations and openings through cladding using secret clip systems avoiding visible fastenings. Flashing design and installation to TARC Design Solutions.

8.9. Flashing penetrations

Flash all penetrations through the roof. Fit pipe flashings with a proprietary collar flashing through pan of TARC profile only. Other penetrations flash as detailed and to provide a weathertight installation. Ensure that flashings are set to avoid any ponding of water.

8.10. Use of sealants

Select and use sealants only as recommended by the roofing manufacturer. Apply sealant in two narrow beads transversely across flashing intersections, close to the two edges. Avoid exposing sealant on outside surfaces.

8.11. Remove filings

Remove metal filings from roofing surfaces at least daily.

8.12. Penetrations and junctions

Check that adjoining walls and parapets are prepared ready for the installation of the roofing. Confirm that openings have been prepared ready for the installation of skylights and other penetrations through the roof. Required work includes the following: - underlay turned up at wall and parapet lines - underlay finished and dressed off to all openings, ready for the installation of skylights and other penetrations - roofing installation neatly finished to all sides of openings and to all wall and parapet junctions - installation of flashings (those required to be installed prior to installation of penetrating elements and/or wall linings).

9. Completion

9.1. Replace

Replace damaged or marked elements. Do not attempt to repair coatings by applying colour match paint to pre-finished surfaces.

9.2. Leave

Leave this work complete with all necessary flashings, under cloaks, valleys, ridges and hips all properly installed as the work proceeds so the finished roof is completely weathertight.

9.3. Remove

Remove trade rubbish and unused materials from the roof and surrounds daily during the work. Sweep down at the end of each day, and clean out spouting, gutters and rainwater pipes on completion of the roof. Remove debris, unused materials and elements from the site. Remove any protective strippable film as soon as possible. Do not leave product exposed with strippable film for more than one week.

9.4. Selections

For further details on selections go to www.tarc.co.nz, Substitutions, are not permitted to the following, unless stated otherwise.

10. Coating system

10.1.Coating system

- COATING SYSTEM- Exposure zone B_C (cat 1-3)
- Project Exposure zone B-C to NZS 3604, C 1-3 to ISO 9223
- Profile/Location:
- Base material:
- Coating system:
- Paint colour:

10.2.Coating system

- COATING SYSTEM- Exposure zone D (cat 4)
- Project Exposure zone D to NZS 3604, C 4 to ISO 9223
- Profile/Location:
- Base material:
- Coating system:
- Paint colour:

10.3.Coating system

- COATING SYSTEM- Exposure zone E (cat 5)
- Project Exposure zone E to NZBC E2/AS1, (C51 &C5M) C 5 to ISO 9223, plus geothermal.
- Profile/Location:
- Base material:
- Coating system:
- Paint colour:

11. Roofing Profile TARC Corrugate

- BMT/material:
- Purlin material:
- Fixing:
- Fixing pattern: Refer to TARC Corrugated literature for details