

TARC Double Lock (TARCDL) Specifications

1. General

This section relates to the supply and fixing of TARC Double Lock Cladding, 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.

- Manufacturer/supplier contact details Company: The Architectural Roofing Company Ltd.
- Web: www.tarc.co.nz Email: info@tarc.co.nz Telephone: 0800 50 2004
- Warranties: A sample warranty showing terms and conditions, and information on maintenance requirements is available from The Architectural Roofing Company.
- Warranty - manufacturer/supplier

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

2.3. 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

Installation to be carried out by 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 cladding material and associated flashings and accessories to form a weather tight and durable rain screen system.

4. Products/materials

4.1. Substrate Strandsarking/Plywood

Provide 16.3mm minimum solid substrate sarking.

Substrate. Refer to TARC Product Technical Statement and Strandsarking Technical manual for Application & technical information. CodeMark Certificate BRANZ-CM-1005 and BRANZ Appraisal, No.89

15mm minimum plywood sarking (such as Ecoply Roofing Grade F11, DD finish ply) and to NZMRM CoP 11.4.2, Substrate. Refer to TARC Product Technical Statement and Ecoply: Structural Plywood Properties & Application Manual for technical information.

4.2. Underlay

Provide a separation layer between treated timber materials and cladding materials.

4.3. Aluminium 5005 or 5052

Alloy H34 or H36 temper to suit application.

4.4. Stainless steel

Strip grade 445M2.

4.5. Copper

Half-hardened commercial finished.

4.6. Zinc

Natural or pre-weathered zinc. Refer to SELECTIONS for surface finish.

4.7. TARC Profiles

Refer to SELECTIONS for profile and pan widths.

4.8. Flashings generally

To E2/AS1, 4.0, Flashings. 0.80/0.70 mm for aluminium 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 clips

Galvanized steel or stainless steel for aluminium, copper or zinc to suit the material and profile of the rigid sheet and location as required by TARC. Fix with 25mm x 2.5mm angular groove stainless steel nails.

5.3. Fixing screws

Appropriate nails to the roofing material, clip type and the supporting structure, as required by the roofing manufacturer and with a minimum Category 5 durability and not less than the material being fixed.

5.4. Rivets

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

6. Accessories

6.1. Sealant

Neutral curing silicone or MS polymer sealant as required by TARC and used as directed. For VM Zinc use only Sikaflex 11FC.

Conditions

6.2. 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.

6.3. 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.

6.4. Storage

Take delivery of and accept packs of cladding undamaged on delivery. Reject all damaged material. Stack material 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.

6.5. 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.

6.6. Separation

Place isolators between dissimilar metals and separate cladding 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.

7. Application

7.1. Set-out

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

7.2. End laps

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

7.3. Lay cladding underlay

Fit and lap underlay where specified over the substrate. Lay underlay horizontally or vertically with a 150mm side lap.

7.4. Avoid damage

Take care to avoid damaging other pre-finished claddings during installation.

7.5. Marking and cutting profiled metal cladding

Use ink pen, chalk line or coloured pencil for marking cladding 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.

7.6. Installing profiled metal cladding

Install and fix in accordance with NZ Steel's Installers Guide, NZMRM CoP and to TARC current product literature. Use only screws/nails as required by the roofing manufacturer. Fixings and accessories to be colour matched before installation.

Fix sheets in place into 16.3mm Strandsarking substrate, with breather type separation layer underlay, using TARC clips secured with minimum of 2 x 25mm x 2.5mm annular groove stainless steel nails, (clips and nails to be of compatible material to that of roofing). Clips to be fastened to substrate at typically 330mm centres using a combination of TARC fixed and sliding clips for Single Lock profiles. Layout of fixed and sliding clips is dependent on roof design. Consult TARC for recommended fixing centres and layout. Make provision for due allowance for dynamic local wind pressures on building and thermal movement in sheet.

Fix sheets in place into 15mm plywood substrate (such as Ecoply Roofing Grade F11, DD finish ply), with breather type separation underlay, using TARC clips secured with 2 x 25mm x 2.5mm annular groove stainless steel nails (clips and screws to be of compatible material to that of roofing). Clips to be fastened to ply at typically 330mm centres using a combination of TARC fixed and sliding clips. Layout of fixed and sliding clips is dependent on building design. Consult TARC for recommended fixing centres and layout. Make provision for due allowance for dynamic local wind pressures on building and thermal movement in sheet.

Plywood substrate to be installed in accordance with Ecoply: Structural Plywood Properties & Application Manual.

7.7. Fixings

Refer to the roofing manufacturer's literature for fixing details, taking care in the higher wind uplift areas at ridges, edges and verges.

7.8. 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.

7.9. Flashing penetrations

Flash all penetrations through the cladding. 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.

7.10. 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.

7.11. Remove filings

Remove metal filings from metal surfaces at least daily.

7.12. 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 windows/doors and other penetrations through the cladding. 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 windows/doors and other penetrations - cladding 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).

8. Completion

8.1. Replace

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

8.2. Leave

Leave this work complete with all necessary flashings, penetrations, all properly installed.

8.3. Remove

Remove trade rubbish and unused materials from surrounds daily during the work. Remove any protective strippable film as soon as possible. Do not leave product exposed with strippable film for more than one week.

8.4. Selections

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

9. Cladding

9.1. TARC Double Lock (TARC DL)

- BMT/material: mm
- Pan width: 300mm to 515mm
- Clips: TARC Fixed and Sliding Clips
- Substrate: Strandsarking/Plywood

10. Accessories

10.1. Flashings - generally

- BMT/material: 0.7mm