

TARC Single Lock (TSL) Specifications

1. General

This section relates to the supply and fixing of TARC Single Lock Roofing, 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.

- NZ Steel: Specifiers and Builders Guide
- NZ Steel: Installers Guide
- Laminex, Strandsarking and Technical Manual
- 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 roofing warranty showing terms and conditions, and information on maintenance requirements is available from The Architectural Roofing Company. Ph 0800 50 2004 or on website www.tarc.co.nz.

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. Strandsarking substrate

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

4.2. Roof underlay

Refer to Pro Clima NZ for your Solitex Mento range of Roofing Underlays.

4.3. Aluminium/zinc alloy coated steel, unpainted

Formability G300 steel sheet coated to AS 1397. Coating class: AZ 150.

4.4. Pre-finished aluminium/zinc alloy coated steel

Formability G300 steel sheet coated to AS/NZS 2728. Coating class: AZ 150

4.5. Pre-finished hot-dipped aluminium/zinc/magnesium coated steel

Formability steel sheet, G300 for roll forming.

4.6. Aluminium 5005 or 5052

Alloy H34 or H36 temper to suit application.

4.7. Stainless steel

Strip grade 445M2.

4.8. Copper

Half-hardened commercial finished.

4.9. Zinc

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

4.10. TARC Profiles

Refer to SELECTIONS for profile and pan widths.

4.11. 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 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 to steel 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.

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 Zincolume® 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. Installing profiled metal roofing

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 roof 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.

Strandsarking substrate to be installed in accordance with Strandsarking Technical Manual.

8.7. Fixings

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

8.8. Valleys

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

8.9. 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.

8.10. 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.

8.11. 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.

8.12. Remove filings

Remove metal filings from roofing surfaces at least daily.

8.13. 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. Roofing

10.1. TARC Single Lock (TSL)

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

11. Accessories

11.1. Flashings - generally

- BMT/material:
- Coating system: To match roofing