



AGRILIGHT® 10/3, 14/3 ROOFING PROFILE INSTALLATION SPECIFICATION FOR 10 YEAR CLASS B NON-FRAGILITY PERIOD

Rooflight material: Agrilight® extruded polycarbonate sheet.

Rooflight thickness: 1.3mm

Isolation from plastisol coating: Plastisol coating on roofing sheets is aggressive to polycarbonate. It is essential that the lapped area of metal sheet at either side of and at the lower end of the polycarbonate rooflight has an aluminium foil adhesive tape applied to completely isolate the polycarbonate from the plastisol-coated metal.

Note: The test work in support of this specification has been completed without any form of sealant being applied between the sheets. Where, for the purpose of enhancing the weather-tightness of the roof it is necessary or desirable to include sealants, at the rooflight end and side laps these should be as follow:

End lap sealing: one row of cross-linked butyl tape, minimum 9mm x 3mm, light in colour, preferably white, each side of the line of primary fasteners.

Side lap sealing: one row of cross-linked butyl tape, minimum 9mm x 3mm, light in colour, preferably white, along the line of secondary fasteners.

Primary fasteners: one primary fastener through alternate corrugation crowns at end laps: one primary fastener on alternate crowns at intermediate purlins (without end laps).

Secondary fasteners: at approximately 300mm centres.

Profile strips at end laps:

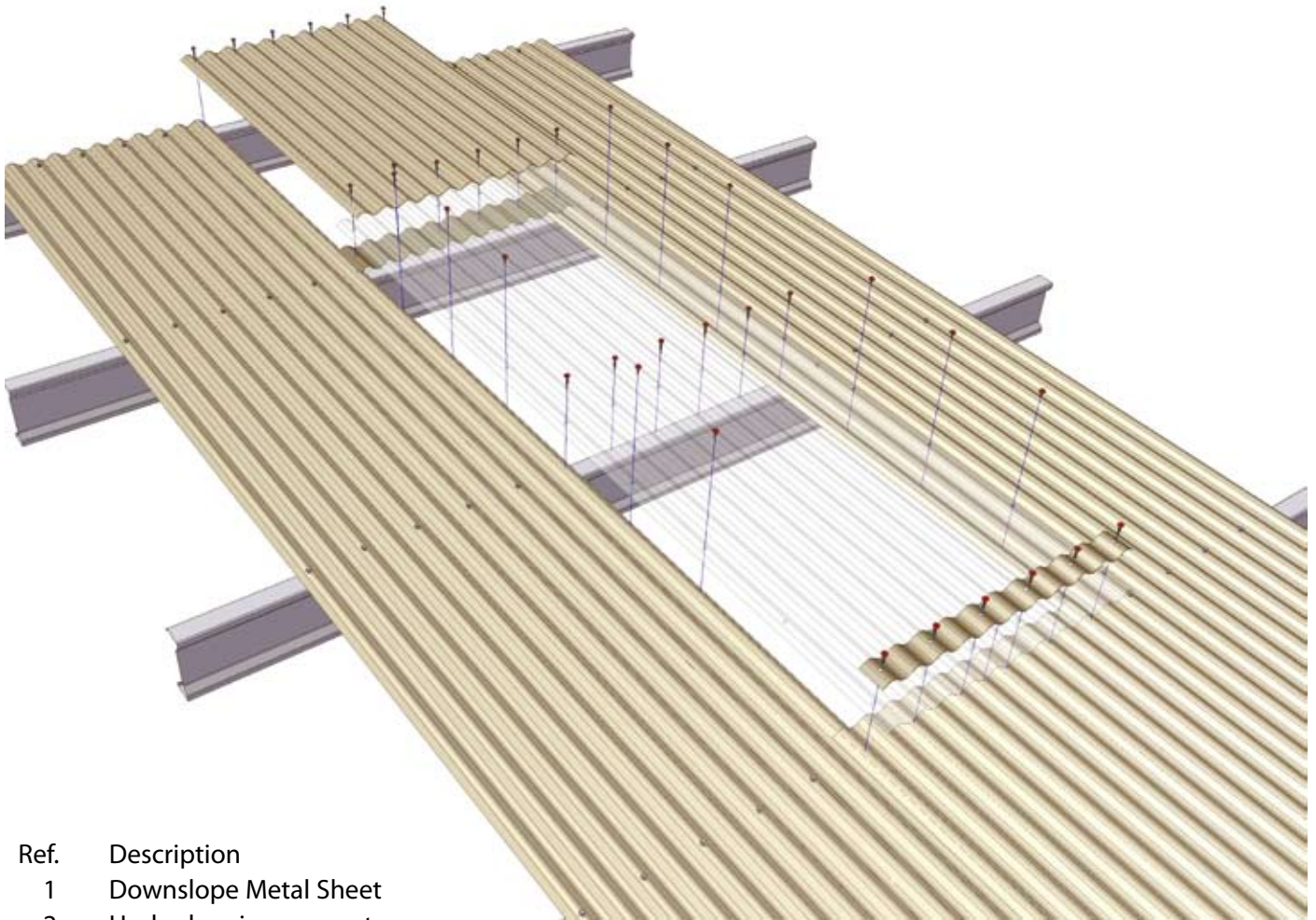
- Where the rooflight end-laps under the metal a 0.7mm x 150mm long full width metal profile strip should be placed under the rooflight, resting on the purlin, its lower edge in line with the lower edge of the lapping metal.
- Where the rooflight end-laps over the metal a 0.55mm x 75mm long full width metal profile strip should be placed on top of the rooflight, centred on the line of fasteners through the end lap.
- Where rooflights end lap on intermediate purlins a 0.7mm x 150mm long full width metal profile strip should be placed under the rooflight resting on the purlin, and a 0.55mm x 75mm long full width metal profile strip should be placed on top of the rooflight, centred on the line of fasteners through the end lap.

Note: it is best practice to fit a supporting profiled foam filler or full profile width strip under the rooflight on all other purlins. This assists in avoiding vibration caused by wind and ensuring weather-tightness.

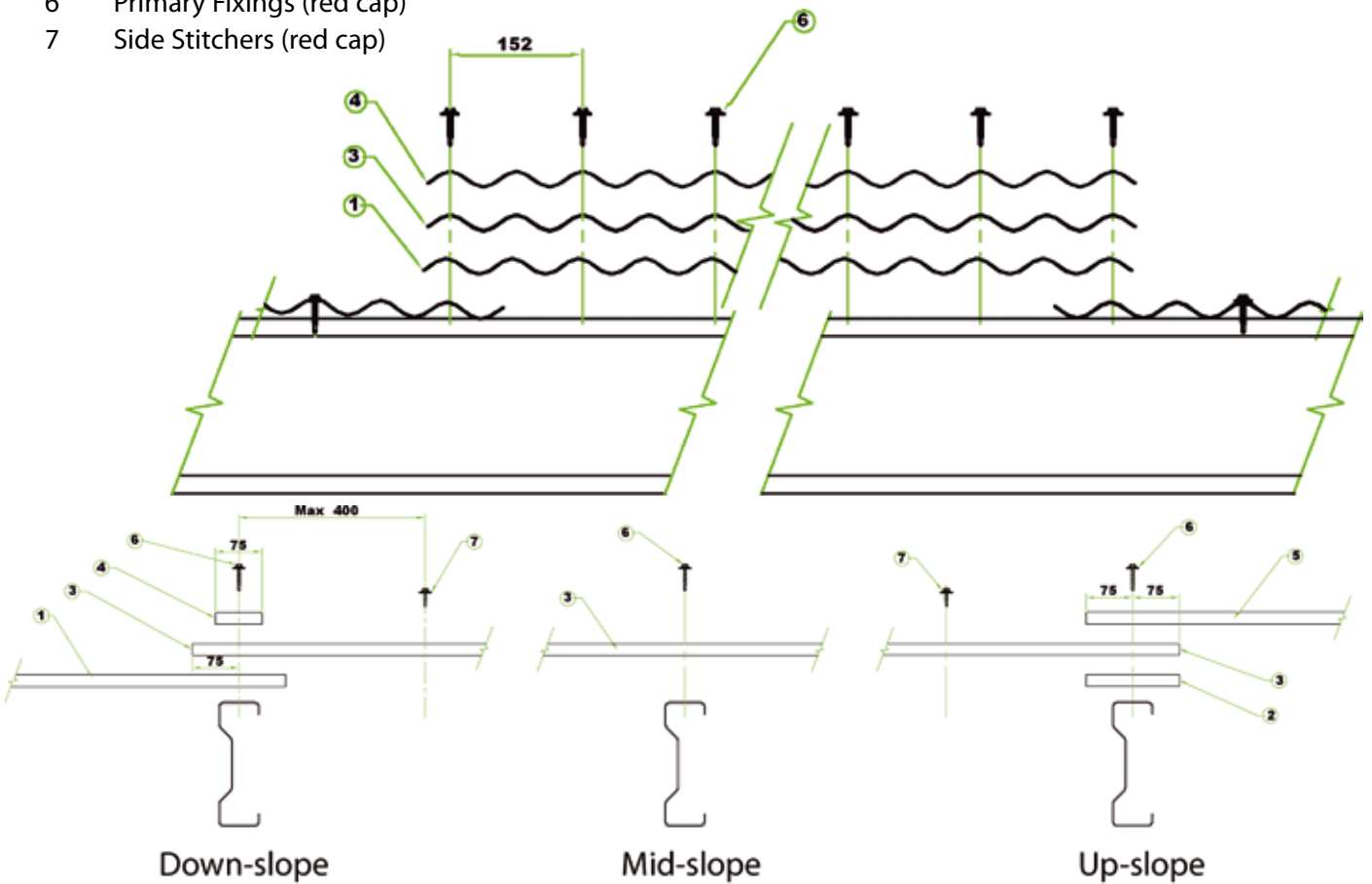
Essential requirements:

In the case of polycarbonate rooflights it is essential that:

- The rooflights overlap the metal sheet profile on both sides
- Where sealant tapes are required, only those compatible with polycarbonate are used e.g. cross linked butyl
- Holes for primary fasteners are at least 75mm from ends of sheet at top end lap and bottom end lap, and are pre-drilled, minimum 10mm diameter, to provide for thermal movement.
- Holes for secondary fasteners are 10mm diameter to allow for thermal movement.



- | Ref. | Description |
|------|---------------------------|
| 1 | Downslope Metal Sheet |
| 2 | Under-lapping support |
| 3 | Marlon CS Rooflight |
| 4 | Over-lapping Profile |
| 5 | Upslope Metal Sheet |
| 6 | Primary Fixings (red cap) |
| 7 | Side Stitchers (red cap) |



- The metal sheet upslope lapping on to the rooflight is fixed through every alternate crown on the end lap.
- Primary and secondary fasteners have washers of minimum diameter of 19mm
- Washers have bonded-on EPDM or other material compatible with polycarbonate.
- Screw fasteners to timber purlins have the appropriate thread form and penetrate the timber no less than 45mm. Drive nails should have 19mm washers with bonded-on EPDM or other material compatible with polycarbonate.
- Fasteners, screws or drive nails, should not be over-tightened: at optimum tightness the washer should just turn when gripped between finger and thumb and torque applied.
- There are no aggressive environmental conditions or chemicals where the material is used.
- Where purlin centres exceed 1500mm or are less than 1000mm guidance is obtained.
- Wind and snow load conditions are taken into account when determining purlin centres.
- Installation is otherwise as per supplier's general recommendations.

Where similar assurances are obtainable from all other parties whose products and functions have an influence on the rooflight installation over its service life, Agrilight® to suit Duggan Profiles & Steel Service Centre Ltd. sinusoidal profiles 10/3, 14/3 in 1.3mm thick extruded polycarbonate rooflights with co-extruded UV protection, when correctly installed in accordance with the above fitting instructions, should remain non-fragile for 10 years, satisfying the requirements of the Health & Safety Authority "Code of Practice for Safety in Roofwork" 2005 for Class B non-fragility.

Deterioration of rooflight material may not be the most critical factor as far as the continued non-fragility of the rooflight installation is concerned. Long term performance of a roof is often determined by the durability of other components used in the installation - primary fasteners, secondary fasteners, supporting sections - by the standard of workmanship in installation, and the conditions and atmospheric environment to which all installed components are subjected during their service life.

As a basis for this specification, impact tests, to the method described in ACR[M]001:2000, revised as ACR[M]001:2005, have been completed on 10/3 and 14/3 profiled Marlon CS Longlife extruded polycarbonate rooflights, with co-extruded UV protection, of thickness 1.3mm. They have been installed as part of a roofing assembly, in conjunction with the corresponding metal profiles in 0.55mm and 0.7mm thicknesses, to confirm non-fragile specification details, including fasteners, and any additional requirements. This specification is valid where the purlins are of hot or cold rolled steel section or timber of appropriate section.

The condition of profiled rooflights, including the security of fasteners, should be checked periodically as part of the overall maintenance programme for the structure into which they are incorporated. If a rooflight is found to be damaged it must be replaced in accordance with the original specification for the installation to remain non-fragile.

Only competent persons should be authorised to be on a roof at any time: they must be made aware of the hazards likely to be encountered e.g. fragile areas of roofing, slippery surfaces, risk of falling at eaves or gable, and any other hazards specific to any one building.

Rooflights must not be walked on at any time.



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