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Daraflexsystem

WATERPROOFING OF I.B.R. OR CORRUGATED ROOFS

Discussion

I.B.R. and corrugated iron roofs exhibit a high degree of movement. Securing bolts tend to work loose. Corrosion is often present, additionally such roofs usually have been painted at some stage. DARAFLEX, because of its ability to stretch is ideal when used in conjunction with a suitable membrane.

Surface Preparation

Ensure that all securing bolts are effective and replace where necessary. Excessive gaps between sheet overlaps (greater than 3 mm) should be treated as follows:

Drill and stitch by means of aluminium blind rivets at 100 mm intervals, thus reducing movement between sheets. Roof cappings and flashing should receive the same treatment.

Inspect roof area for signs of corrosion. Where present wire brush or scabble down to bright metal. Apply a coating of DARACRYL DC4 rust inhibitor to the affected areas.

Old paint/coatings should be removed by means of a power driven circular wire cup brush 50 mm on either side of all joints to be waterproofed. DARACRYL DC4 rust inhibitor shall be applied to this area. Similarly all bolt heads shall be treated ensuring a clean rust inhibited circular area of a minimum diameter of 50 mm.

Application

LAPS

Apply undiluted DARAFLEX along the laps in a strip exceeding 100 mm in width. The application rate shall be 1l/m2. Immediately unroll 100mm wide SBP geo fabric, into the wet product ensuring complete “bedding” of the membrane into the product, “working in” with a suitable paint brush.

It must be stressed that metal roofs attain high temperatures in summer and this can cause the DARAFLEX to dry very quickly. In order that the membrane absorbs sufficient DARAFLEX it is essential that it still be wet when the membrane is laid. To achieve this, in practice, do not apply product further than half a metre ahead of the membrane. Poor adhesion will result should the membrane be placed into a too dry film.

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Treat all laps in this manner. Not sooner than 30 minutes at 25ºC and 60% RH after this application, a second coat of DARAFLEX diluted 90 parts product and 10 parts water, shall be applied over the now partially saturated membrane. A final coat of similarly diluted product may be applied 30 minutes later.

Both coatings shall be at the rate of .75L/m^2. At this stage it can be seen that 2.5L/m^2 of product has been applied. The now built up waterproofing membrane shall conform to the following weight specification:

$$\frac{2.5}{1} \times \frac{55}{100} = 1.375 + .120 = 1.475\text{kg/m2} \quad +/- \quad 5\%$$

BOLT HEADS

Cut out circular pieces of SBP geo fabric measuring 75 mm in diameter (pre cut SBP patches are available)

Apply undiluted DARAFLEX at the rate of 1L/m^2 to the prepared circular area around and on top of the bolt head. Place the prepared membrane into the wet product working it into place with a brush. Allow a drying period of 30 minutes and recoat with undiluted DARAFLEX. After a further drying period of 30 minutes apply a final coat of DARAFLEX.

Flashings

It is recommended that the membrane be turned up the parapets 150 mm. A flashing strip of 300 mm (available in pre-cut rolls of 20 m in length) should overlap the turn-up in such a manner that 100 mm of its width be on the horizontal plane and 200 mm on the vertical.

Finish coat

A finishing coat of DARACOAT REFLECT Bitumenous Aluminium Paint, which is highly reflective, is recommended.

Application

REFLECT:

After allowing the final DARAFLEX coating a minimum drying period of one full day at 25^o C and 60% R.H. the REFLECT may be applied. The coating should not be applied later than one week of the final DARAFLEX application. Using a paint roller apply REFLECT at the rate of 1L/5m^2.

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NOTE: The product should be well stirred before use and should be stirred periodically during application to ensure a consistent appearance. The product must not be applied under wet conditions, and the drum once open must be protected against moisture. Failure in doing so will result in a dull coppery appearance.

NOTE: REFLECT is a solvent based material and as such is highly flammable in the wet state.

The completed system has a very bright silver appearance, which ensures excellent U.V. protection. Maintenance repaints are recommended at three yearly intervals. Owing to the flexibility differential between REFLECT and DARAFLEX imperfections in the coating may develop. This is not abnormal and generally does not redevelop after the first maintenance coat. The completed system is suitable for occasional light foot traffic only.

The completed system is resistant to rain after a period of 3 hours at 25^{o}C and 65% R.H., however, full resistance develops over a period of days and it is therefore critical that excessive ponding not be anticipated when using this system.

Maintenance

A maintenance re-coat is recommended after three years.