

ROOF INSULATION USING HEAT REFLECTIVE COATING.



Summary of Application

STEP 1: Chamfer making between the roof screed & parapet walls with the Addition of **Ressi SBR 5850** & **Silmix**.

Detailed Description

Insulation is the most effective way to improve the energy efficiency of a home, commercial or an industrial space. Insulation of the building envelope helps keep heat in during the winter, but also lets' heat out & cooling inside the structure during summer. If a structure is properly insulated it can easily save up to 60 ~ 70% in heating & cooling costs after installation.

Step 1: Chamfer making between the roof screed & parapet walls with the Addition of Ressi SBR 5850 & Silmix.

It is recommended to make chamfers between the parapet walls & the floor screed. The material recommended for making the chamfers in this case is a combination of **Ressi SBR 5850** & **Silmix**. Both these materials are added as 1 Ltr each with each 50 KG bag of cement as an additive to promote bonding and waterproofing of the chamfers. The chamfers should be at least 4 inches tall & 4 inches wide along the entire area intersecting the parapet walls and floor screed.

Step 2: Application of Heat Guard 1000

Heat Guard 1000 is a single component high heat resistant reflective and waterproof coating which has been designed to dissipate and reflect solar radiation by providing a protective coating. **Heat Guard 1000** is applicable on a variety of substrates such as concrete, blocks, bricks, plaster and screeds, and a variety of shaded metal roofs. **Heat Guard 1000** had added glass beads aggregates embedded into it which can reflect heat off the surface to a great extent.

The surface on which **Heat Guard 1000** is to be applied should be clean and sound, free of dust loose particles, grease, oil, primers from previous membrane systems or bitumen. Bitumen or primer should be repaired by cutting out to sound concrete and patching with polymer modified repair materials preferably from the patch series of Ressichem repair materials. Cracks, holes, and honeycombs must be repaired prior to application. Areas at brick / block walls to receive waterproofing should have brick joints evenly finished with a suitable plastering solution recommended by Ressichem.

Saturate the concrete surface with clean water. Apply first coat while the surface is still damp but free from standing water. Apply using a short stiff bristle brush, roller at a rate of 1-2mm, depending on the expected water pressure. Required thickness is achieved by applying 2 to 3 layers, taking care that each layer is not

STEP 2: Application of **Heat Guard 1000**.

An un-insulated structure is subject to considerable winter heat losses and summer heat gains. Ressichem has a variety of products that can be used for the insulation of a roof. The following system describes a waterproofing and insulation systems with the effective use of **Heat Guard 1000**.



thicker than 1mm. Leave the first coat to dry for 2 to 3 hours before applying the second coat. Second coat can be rubbed down with a soft sponge. Spray or trowel application is acceptable provided that the mixing ratio is adjusted to achieve the right consistency. Leave the final coat of **Heat Guard 1000** to cure overnight & keep moist for 3-4 days before proceeding to conduct water proofing test. It is recommended that for over hollow blocks or highly porous areas a minimum of 3 to 4 coats at 1 mm thickness to be applied.

Note: Heat Guard 1000 is also a waterproof material. It can also make the surface of the roof watertight a well. A proper flood test can also be conducted with **Heat Guard 1000** if needed.

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What is a Chamfer?

Is a transitional edge between two faces of an object. Sometimes defined as a form of bevel, it is often created at a 45° angle between two adjoining right-angled faces. (Wikipedia).

In waterproofing systems, making a **chamfer** is of great significance. Water normally gets stuck in areas which have sharp corners of 90° & on several occasions the leakage of water occurs from this the sharp angle of the water retaining bodies or areas where significant waterproofing is required. To minimize the effect of this, a **chamfer** is usually created to make sure that there are no sharp angles in the structure to minimize the effect of water coming in & out of the structure.

