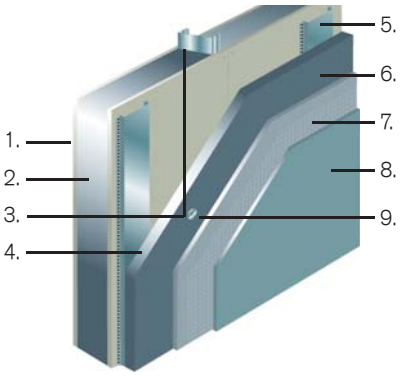
Hanson
HEIDELBERGCEMENT Group

NSC 7 is one of many options in Structherm's range of Insulated Render Systems. The system is an efficient and cost-effective rendered cladding method for newbuild projects, that require the provision of a drained cavity to satisfy the NHBC and Zurich Regulations.

Insulated Render Systems

Diagram 1 Insulated render sequence of layers (NSC 7)



1. Plasterboard
2. Insulation between studs
3. Metal frame or timberframe system
4. Sheathing board
5. Steel rail to create 15mm cavity
6. Insulation
7. Mesh embedded in basecoat render
8. Finish
9. Fixing into steel rail

Introduction

Increasingly timber frame or lightweight cold rolled infill panels are being utilised to provide the envelope to domestic dwellings. The NHBC and Zurich Municipal require that a drained cavity be provided between the Insulated Render System and the frame where this type of construction is used.

Structherm Ltd have developed a drained cavity solution specifically for this application, that allows the Structherm insulated render to be applied to these framed structures with a drained cavity.

Insulants

All insulants are CFC-free, available as rigid boards in standard sizes of 1220 x 610mm and in a standard range of thicknesses from 30mm to 200mm. Other thicknesses are available to suit varying thermal insulation requirements. The boards have either plain or tongued and grooved edges on all sides.

The range of insulants includes:

Expanded polystyrene 30 kg/m^3
Mineral fibre 140 kg/m^3

System Descritpion

The steel top-hat spacer rails are fixed back to the sheathing board using selected fixings. It is important to consider the type of sheathing board as certain boards may not be suitable. Cement particle boards rather than plywood/OSB are recommended. The insulation boards are then fixed with 6-8 fixings per m^2 to the rails. The system is designed to resist the site specific wind loadings. Intumescent fire break strips are incorporated to seal the cavity.

Mesh

Glass Fibre Mesh in sheet or roll form, embedded in a 1mm skim of bonding render. Adjoining areas of mesh should have 100mm cover laps.

Base Coat Application

The Bonding Bianco/Grigio is a high polymer base coat material which is applied to the face of the insulant and the reinforcing mesh is trowelled into the render insulant whilst wet.

Surface finishes

Flesscoat Cortina TH 1–1.5mm thick gives a variety of coloured and textured finishes. The durable, maintenance free coating is composed of selected marble chips and powder and acrylic co-polymers, set in an emulsion base with siliceous aggregates, additives, bactericides and inorganic pigments. Siloxane and silicate based finishes are also available for enhanced performance.

Accessories

A wide range of bellcast capping, bead and joint profiles are available in PVC-U with glass fibre mesh wings to suit all requirements.

Characteristics of Option Thermaphon NSC 7:

a) Incorporate 15mm drained cavity for NHBC and Zurch regulations
b) Fast installation
c) High thermal efficiency
d) Good impact strength
e) Vapour permeable
f) Flexible choice of final texture and colour
g) no expansion joints required*

Typical Applications
Suitable for new-build residential projects, that are timber/steel framed and require NHBC/Zurich warranty cover.

*Horizontal movement joints maybe required if the infill structure has movement joints built in.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