

# SIDERISE® NXS SPANDREL INSULATION: FIRESAFE INSULATION

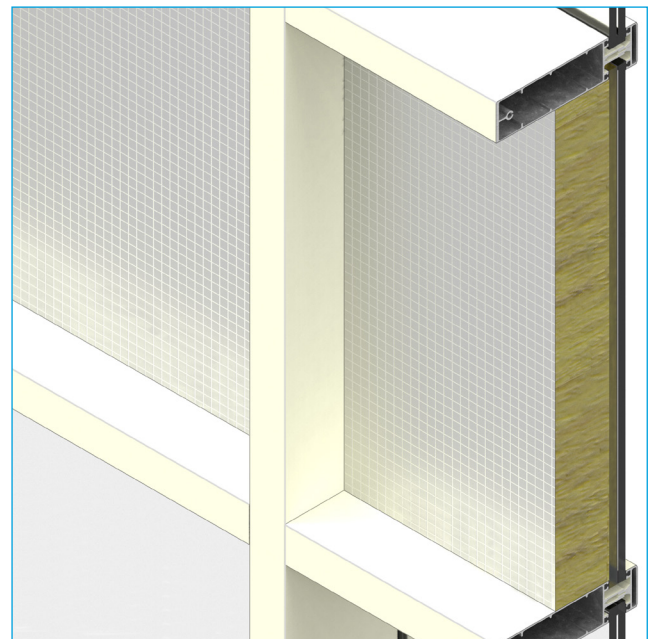
SIDERISE NXS Spandrel Insulation comprises firesafe mineral fibre lamella boards that have been developed as a high strength insulation core for use within spandrel panels.

## Making your world a safer place

SIDERISE NXS Spandrel Insulation:

- Offers an unrivalled combination of fire, thermal and acoustic performance.
- Presents a compatibility of materials at the interface between the rear of the spandrel unit and the firestop system installed at compartment floors and walls.

The result is that the integrity of the interface between the insulation and firestop is not compromised - **and that effective compartmentation is maintained.**



## Benefits

- Eliminates metal tray lining
- High compressive strength
- Dimensionally accurate
- Firesafe - Class A1
- Maintains integrity at interface with fire-stopping
- Ensures compartmentation is not compromised

## Material choice

SIDERISE NXS Spandrel Insulation is available in different grades to suit the performance requirement of the project. Material suitability is dependent upon the intended application of the product and the nature of the curtain walling system being considered.

## Supply form

SIDERISE NXS Spandrel Insulation is typically supplied in kit form to suit the glazing unit schedule. Alternatively, standard size boards are available from stock.

SIDERISE NXS Spandrel Insulation is supplied with an open polymer filament net fabric facing to one side to facilitate the structural bonding to the glazed unit.

As standard, the reverse side is faced with Class 0 reinforced aluminium foil.

## Dimensions

SIDERISE NXS Spandrel Insulation boards are normally supplied cut to final size and additionally can incorporate edge rebating and/or surface profiling. Thickness is determined on a project basis according to the thermal and/or fire performance required.

Supplied in module lengths to suit overall panel size.

Any width is available up to 1200mm.

Thickness' available range from 20mm to 200mm in 1.0mm increments.

The dimensional tolerances achieved are to some degree dependent upon the grade material being processed.

Typical working dimensions on ordered dimensions are as follows:

- Length +/- 2.0mm
- Width +/- 2.0mm
- Thickness +/- 0.5mm

## Bonding

SIDERISE NXS Spandrel Insulation is designed to be compatible with a range of proprietary silicone adhesive systems.

The Siderise Technical Sales Team is pleased to assist work in conjunction with the major sealant manufacturers to provide advice on bonding methodology and development testing.

## Performance

### Thermal

Standard grades of SIDERISE NXS Spandrel Insulation exhibit thermal conductivity's between 0.038 W/m.K and 0.043 W/m.K.

Upon receipt of the glazing unit specification, Siderise are able to calculate and engineer the requisite grade and thickness of SIDERISE NXS Spandrel Insulation required to meet any given thermal target performance.

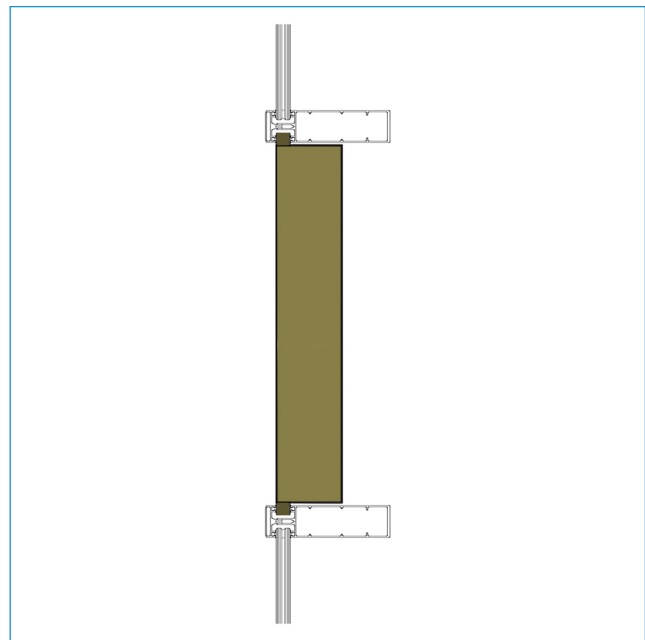
Please contact Siderise Technical Sales Team on a project basis.

### Acoustics

SIDERISE NXS Spandrel Insulation offers exceptional acoustic performance.

They can be readily incorporated into panel specifications that require enhanced sound transmission losses.

The complexity of acoustic properties mean that the actual performance is dependent upon the final design and materials of construction.



SIDERISE NXS Spandrel Insulation is supplied at the optimum thickness required to meet thermal and/or sound reduction performance requirements on a project basis.

### Fire Safety

The motivation for presenting the SIDERISE NXS Spandrel Insulation in this application is to provide a “Fire Safe By Design” solution to the problem of curtain wall systems incorporating compressible thermal insulation slabs or combustible foam materials.

Being inherently ‘non-combustible’, mechanically strong and dimensionally stable, SIDERISE NXS Spandrel Insulation provides the best possible consideration for maintaining system integrity at the junction between the building structure and the curtain wall.

However, the actual fire resistance achieved will remain primarily dependent on the curtain wall / frame specification. Information and design advice is available on a project basis.

### Large scale fire test

Insulated spandrel panels comprising Siderise NXS Spandrel Insulation have been tested as part of large scale assemblies to determine the fire resistance of curtain walling systems.

Fire test: BS EN 1364-3: 2006 - Fire resistance test for non-loadbearing elements. Curtain walling – Full configuration (complete assembly).

Curtain walling assembly:

Standard aluminium extruded stick curtain walling system with minor modifications and reinforcement to mullions for fire rated performance purposes.

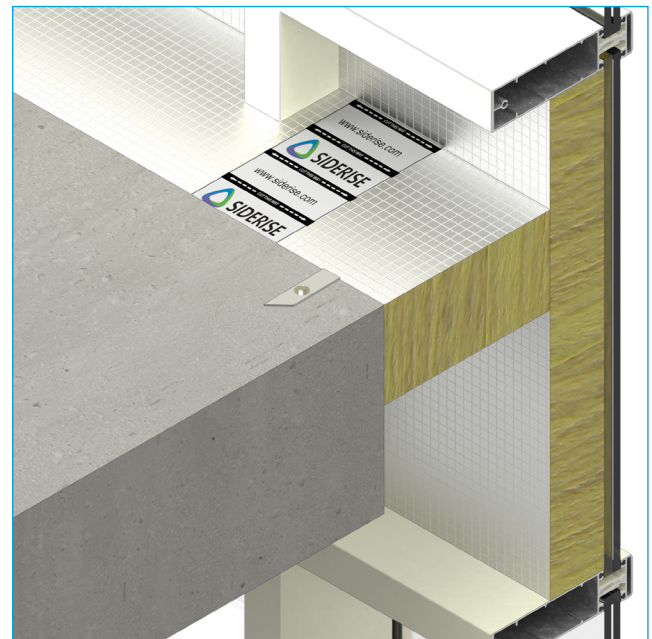
The system included:

- Standard ‘Pyro glass’ 28mm IGU’s
- Non-fire rated 6mm toughened glass ceramic spandrels protected by from fire by Siderise Firesafe Insulation, type NXS, at 146mm thickness to match curtain wall frame depth.
- Bonded composite panel: 28mm rebated, 146mm overall thickness with 2mm aluminium outer skin and 0.9mm galvanised mild steel tray inner. Panel comprised SIDERISE Nexus Lamella Board, grade RPP/2714, 124kg/m<sup>3</sup>.

Tested performance: REI30.

No issues regarding integrity or insulation.

Please contact the Siderise Technical Sales team for further details.



Siderise ‘Firesafe By Design’  
Detail of interface between Siderise Perimeter Barrier slab edge firestop system and Siderise NXS Spandrel Insulation.



# Further information

## Available CPDs

Contact SIDERISE for further information on our CPDs:

- SIDERISE Acoustic Products & Performance - Information for Noise Consultants
- SIDERISE Facade Acoustics
- SIDERISE Sound Transmission in Curtain Wall Buildings
- SIDERISE Cavity Barriers in Curtain Wall Facades
- SIDERISE Cavity Barriers in Rainscreen Facades

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