

## Technical Data Sheet

EXCEL®

(Excel HR S - Alpal Décor CPV)

| 1. | Description        | Excel is a reinforced Alpa® polymer modified self-finished bitumen waterproofing membrane. Its surface is finished with coloured ceramic granules or mineral slate chippings and its under surface is finished with a thermofusible film. Minimum selvedge width is 8cm.  |
|----|--------------------|---|
| 2. | Use                | Excel capsheet is accredited for use in a warm roof single or multi layer waterproofing system, fully or partially bonded, in a flame free hot air welded, mechanically fixed (Excel FM*) application or in a torch-on application on flat, zero fall and pitched roofs:  |
|    |                    | <ul> <li>With limited access or under heavy protection (e.g. concrete slab) on flat<br/>roofs, terrraces, balconies and walkways with regular pedestrian traffic.</li> </ul>  |
|    |                    | <ul> <li>As a repair and refurbishment waterproofing system for existing roofs as a<br/>complete single or multi layer overlay where appropriate.</li> </ul>  |
|    |                    | • As part of a built-up multi layer specification, where necessary in conjunction with appropriate Axter reinforced bitumen membranes in accordance with BS 8747:2007, BS 8217:2005 and BS 6229:2018 and warm or inverted roof insulation on fully or partially bonded flat or pitched roofs with limited access or under heavy protection (e.g. concrete slab) on flat roofs, terraces, balconies or walkways with regular pedestrian traffic. |
|    |                    | *Excel FM - see separate Excel FM Technical Data Sheet for further details.   |
| 3. | Application method | Installed fully or partially bonded, with fully sealed joints, using hot air fastening, torch-on or mechanically fixed (Excel FM*) techniques to form a continuous layer.   |
| 4. | Storage            | Rolls to be stored upright and away from heat.  |
| 5. | Composition        | (Indicative).   |
|    |                    |   |

| Reinforcement (g/m²)        | Stabilised polyester       | 180          |
|-----------------------------|----------------------------|--------------|
| Binder (g/m²)               | Alpa®-mix                  | 3500         |
| Surface finish (g/m²)       | Mineral slates or granules | 1000<br>1200 |
| Under surface finish (g/m²) | Thermofusible film         | 10           |

| Characteristics                        |                         |           | Standards (BS) | Units     | Value | Tolerance |      |
|--|-------------------------|-----------|----------------|-----------|-------|-----------|------|
|  |                         |           |                |           |       | Min       | Max  |
|  | Length                  |           |                | m         | 8     | -1%       |      |
| Dimensions                             | Width                   |           | EN 1848-1      | m         | 1     | -1%       |      |
|  | Straightness            |           |                | -         | Pass  |           |      |
|  | Nominal roll weight     |           |                | kg        | 40.6  | 39.7      | 43.7 |
|  | Thickness (selvedge)    |           | EN 1849-1      | mm        | 4.00  | 3.80      | 4.20 |
| Visible defects                        | New product             |           | EN 1850-1      | -         | None  |           |      |
|  | After ageing to EN 1297 |           |                | -         | NA    |           |      |
| Adhesion of granules                   |                         |           | EN 12039       | %         | 15    | 0         | 30   |
| Resistance to                          | istance to              |           | EN 12310-1     | Ν         | NA    | -         | -    |
| tearing (nail shank)                   | Cross direction         |           |                |           | NA    | -         | -    |
| Tensile properties:<br>maximum tensile | Longitudinal            |           | EN 12311-1     | N/50mm    | 600   | 500       | 900  |
| force                                  | Cross direction         |           | EN 12311-1     | N/SOITIIT | 600   | 500       | 750  |
| Tensile properties:                    | Longitudinal            |           | EN 12311-1     | %         | 35    | 25        | 60   |
| elongation                             | Cross direction         |           |                |           | 35    | 25        | 60   |
|  | Maximum force           | Selvedge  | EN 12316-1     | N/50mm    | NA    | -         | -    |
| Peel resistance                        |                         | End joint |                |           | NA    | -         | -    |
| of joint                               | Average force           | Selvedge  |                |           | NA    | -         | -    |
|  |                         | End joint |                |           | NA    | -         | -    |
| Shear resistance                       | Maximum force —         | Selvedge  | EN 12317-1     | N/50mm    | 600   | 500       | 750  |
| of joint                               |                         | End joint |                |           | 600   | 500       | 900  |
| Flexibility at low                     | Surface                 |           | EN 1109        | °C        | -14   | ≤         |      |
| temperature                            | Under surface           |           |                |           | -14   | ≤         |      |

| Characteristics                                    | Standards (BS)          | Units        | Value | Tolerance |          |     |
|--|-------------------------|--------------|-------|-----------|----------|-----|
|  |                         |              |       |           | Min      | Max |
| Flow resistance<br>at elevated                     | New product             | EN 1110      | °C    | 120       | ≥        |     |
| temperature  | After ageing to EN 1296 |              |       | 120       | 110      | 130 |
| Resistance to impact                               |                         | EN 12691     | mm    | 600       | ≤        |     |
| Resistance to static loading                       |                         | EN 12730 (A) | kg    | 20        | ≥        |     |
| Dimensional stability                              |                         | EN 1107-1    | %     | 0.5       | ≤        |     |
| Form stability under cyclic temperature change     |                         | EN 1108      | %     | NA        |          |     |
| Water vapour<br>transmission                       | New product             | EN 1931      | -     | µ=20000   |          |     |
| properties   | After ageing to EN 1296 |              | -     | NA        |          |     |
|  | New product             | EN 1928      | -     | Pass      | at 10kPa |     |
| Watertightness                                     | After ageing to EN 1296 |              | -     | NA        | al TOKPa | 1   |
| Watertightness after stretching at low temperature |                         | EN 13897     | %     | NA        |          |     |
| Reaction to fire                                   |                         | EN 13501-1   | -     | NPD       |          |     |
| Resistance to root penetration                     |                         | EN 13948     | -     | NA        |          |     |

NA=Not applicable due to use of product. NPD=No Performance Determined.

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