

# Insulation pipe section

Pre-formed pipe section

Specification code: MW – EN 14 303 – T8\* – ST(+)-600 – WS1 – CL10  
\*T9 for the outside pipe section diameter  $\geq 150$  mm



## PRODUCT DESCRIPTION

Insulation pipe section cut from stone wool blocks Orstech Block. Mineral wool fibres are processed into the final shape of blocks at the production line from which several producers cut insulation pipe sections themselves that are sold under various trademark on the market. For more information we can forward you to one of our OEM partner.

Pre-formed snap-on pipe sections are single-layered hollow cylinders made of one or more segments. Snap-on configuration prevents the longitudinal slot against heat loss. Pipe sections can be supplied without an outer facing or with a factory-applied fibreglass reinforced aluminium foil incorporating a self-adhesive overlap. The pipe section is recommended to secure by aluminium tape or by galvanized wire transversely. Pipe sections are usually knotted three times per meter, more times at pipe sections with higher diameter. Higher diameters should be secured either by wire or by metal band (at least two bands per meter).

## APPLICATION

Insulation pipe sections designed to provide thermal and acoustic insulation of pipework in HVAC and industrial applications.

Despite the fact that hydrophobing additives in the insulation impede the ingress of water, it is necessary to protect the slab in the construction against moisture and possible mechanical damage by a proper manner.

Maximum service temperature: 600 °C according to EN 14707. Surface temperature on the aluminium side must not exceed 100 °C; proper thickness of insulation must be designed to fulfil that. Binders and greasing agents in mineral wool products dissolve and evaporate in areas with temperatures higher than 150 °C. In the outer, colder areas, no dissolution and evaporation take place.

## DIMENSIONS AND PACKAGING

| Inner diameter of a pipe section | Thickness of a pipe section | Pipe section length |
|----------------------------------|-----------------------------|---------------------|
| 21 – 273 mm*                     | 25 – 100 mm*                | 1000, 1200 m        |

\* Final design is dependent on the diameter of the pipe and on specified insulation thickness.

## TECHNICAL PARAMETERS

| Parameter  | Unit                                | Value                   |       |       |       |       |       | Standard          |
|--|-------------------------------------|-------------------------|-------|-------|-------|-------|-------|-------------------|
| THERMAL INSULATING PROPERTIES  |                                     |                         |       |       |       |       |       |                   |
| Declared value of the thermal conductivity $\lambda_D$ according to EN ISO 13787 for pipe section with density 65 kg/m <sup>3</sup> *                                  | °C                                  | 40                      | 50    | 100   | 150   | 200   | 250   | 300               |
|  | W·m <sup>-1</sup> ·K <sup>-1</sup>  | 0.043                   | 0.044 | 0.055 | 0.068 | 0.087 | 0.110 | 0.136             |
| Declared value of the thermal conductivity $\lambda_D$ according to EN ISO 13787 for pipe section with density 90 kg/m <sup>3</sup> *                                  | W·m <sup>-1</sup> ·K <sup>-1</sup>  | 0.042                   | 0.043 | 0.052 | 0.063 | 0.079 | 0.096 | 0.117             |
| Maximum service temperature ST(+) / on the aluminium side  | °C                                  | 600 / max. 100          |       |       |       |       |       | EN 14707          |
| Specific heat capacity $c_p$   | J·kg <sup>-1</sup> ·K <sup>-1</sup> | 800                     |       |       |       |       |       | -                 |
| PHYSICAL PROPERTIES  |                                     |                         |       |       |       |       |       |                   |
| Density  | kg·m <sup>-3</sup>                  | 65, 90                  |       |       |       |       |       | EN 1602, EN 13470 |
| Short term water absorption ( $W_p$ ) WS   | kg·m <sup>-2</sup>                  | << 1                    |       |       |       |       |       | EN 1609           |
| FIRE SAFETY PROPERTIES   |                                     |                         |       |       |       |       |       |                   |
| Pipe section without a facing: Reaction to fire  | -                                   | A1 <sub>l</sub>         |       |       |       |       |       | EN 13501-1        |
| Pipe section with the aluminium facing: Reaction to fire - additional classifications on smoke emission and speed (s) and on the possible fall of flaming droplets (d) | -                                   | A2 <sub>l</sub> -s1, d0 |       |       |       |       |       | EN 13501-1        |
| Melting temperature $t_t$  | °C                                  | $\geq 1000$             |       |       |       |       |       | DIN 4102 part 17  |

\* Measurement based on EN ISO 8497

1. 2. 2019 The information is valid up to date of publishing. The manufacturer reserves right to change the data.