

## 650 D.C. Calcium Silicate Insulation Products (Calsil 650°C)

The 650 D.C. calcium silicate products (board/ block/ slab/ pipe (cover/ sections)) are suitable for thermal insulation of piping and equipment in power station, steel mill and petrochemical industries as well as other various fields. It can also be specified to use in furnace as backing material of refractory bricks.

With the properties of the following;

- High strength: the strongest one among the inorganic thermal insulation materials with the similar density;
- Non-deformation within the temperature range;
- Low thermal conductivity ;
- Asbestos-free.



Technical data:

| Item   | Unit               | Value |       |     | Standard GB 10699-98 |       |
|--|--------------------|-------|-------|-----|----------------------|-------|
|  |                    |       |       |     |                      |       |
| Bulk density (max.)  | Kg/ m <sup>3</sup> | 170   | 220   | 500 | 170                  | 240   |
| Flexural strength (min.)                                   | Mpa                | 0.25  | 0.3   | 1.0 | 0.2                  | 0.3   |
| Compressive strength (min.)<br>at 5% deformation           | Mpa                | 0.5   | 0.6   | 2.0 | 0.4                  | 0.5   |
| Linear shrinkage (max.) after<br>heating for 16h at 650 °C | %                  | 2     | 2     | 2   | 2                    | 2     |
| Thermal conductivity (max.)<br>average temp. 70 °C         | W/m.k              | 0.055 | 0.062 | 0.1 | 0.065                | 0.065 |
| Service temp. (max.)                                       | °C                 | 650   | 650   | 650 | 650                  | 650   |
| Moisture content (max.)                                    | %                  | 7.5   | 7.5   | 7.5 | 7.5                  | 7.5   |

Availability:

|              |                                 |                         |                      |
|--------------|---------------------------------|-------------------------|----------------------|
| Board        | Length x Width                  | 610 x 150mm             | Thickness 25-100mm   |
|              |                                 | 600 x 150mm             |                      |
|              |                                 | 610 x 300mm             |                      |
|              |                                 | 600 x 300mm             |                      |
|              |                                 | 915 x 305mm             |                      |
|              |                                 | 1000 x 500mm            |                      |
|              |                                 |                         |                      |
| Curved sheet | Inside diameter<br>196 ~ 3560mm | Length<br>610/600/915mm | Thickness 25 ~ 100mm |
| Pipe cover   | Inside diameter<br>16 ~ 171mm   | Length<br>610/600/915mm | Thickness 25 ~ 100mm |

Tolerance for different products:

| Item         | Allowable dimension tolerance (Unit: mm) |       |                 |           | Surface crack (Unit: spot) |               |
|--------------|--|-------|-----------------|-----------|----------------------------|---------------|
|              | Length                                   | Width | Inside diameter | Thickness | Broken edge                | Broken corner |
| Board        | +3                                       | +3    |                 | +3        | 1                          | 1             |
|              | -2                                       | -3    |                 | -2        |                            |               |
| Curved sheet | +3                                       |       | +5              | +0        | 1                          | 1             |
|              | -2                                       |       | -0              | -2        |                            |               |
| Pipe cover   | +3                                       |       | +3              | +0        | 1                          | 1             |
|              | -2                                       |       | -0              | -2        |                            |               |

Correlative page:

<http://www.mowcoproducts.com/650-calcium-silicate-pipes.html>