

# CQ 100 CQ 100 AL

DOP 56

DOP 57

MW - EN 14303

RI  
SE

Research Institutes  
of Sweden



**TERMOLAN**

ISOLAMENTOS TERMO-ACÚSTICOS, S.A.



## DEFINITION:

Pipe sections of uniform thickness cutted from blocks, made of stone wool fibres bonded with synthetic binder, without facing- CQ 100 - or aluminium faced - CQ 100 AL.

## APPLICATIONS:

Multiple applications as thermal (both hot and cold) and acoustical insulation of pipes for steam, fluid transport pipe work, central heating and air conditioning systems. Product also ideal for acoustical insulation of water evacuation pipes.

## BENEFITS:

- Easy and quick application;
- High insulation performances;
- Very good mechanical performance;
- Fire safety;
- Chemically neutral and non corrosive;
- Excellent water behaviour;
- Inert product respecting the environment (CFC and HCFC free).

## PRESENTATION:

Pipe sections. Options:

| THICKNESS (mm)<br>[NP EN 823] | DIMENSIONS (mm)<br>[NP EN 822] / [EN 13467] |
|-------------------------------|---------------------------------------------|
| 25 to 100                     | 1200xΦ*                                     |

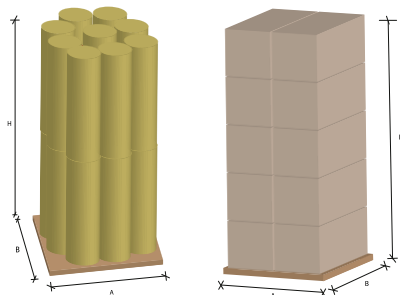
\* Φ are presented in MANUFACTURING DIAMETERS

## Tolerances:

THICKNESS AND DIAMETER: CLASSES T8- T9  
LENGTH: ± 5mm

## PACKAGING:

Pipe sections in retractile plastic bags or cardboard boxes. Geometry (AxBxH):



## PHYSICAL PROPERTIES OF MATERIALS

### NOMINAL DENSITY

100 kg/m<sup>3</sup>

EN 13470  
ASTM C302

### MAXIMUM SERVICE TEMPERATURE

ST(+) = 500 °C

EN 14706  
ASTM C447  
ASTM C411

**NOTE:** The service temperature of the aluminum facing must not exceed 90 ° C.

### SPECIFIC HEAT FACTOR

c = 0.84 kJ/kg.°C

### MANUFACTURING DIAMETERS, Φ

NP EN 823  
EN 13467

| DIAMETER |        | THICKNESS (mm) |    |    |    |    |    |    |    |     |
|----------|--------|----------------|----|----|----|----|----|----|----|-----|
| (mm)     | (in)   | 25             | 30 | 40 | 50 | 60 | 70 | 80 | 90 | 100 |
| 18       | 3/8"   | ○              | ○  | ○  | ○  | ○  | ○  | ○  | ○  | ○   |
| 22       | 1/2"   | ○              | ○  | ○  | ○  | ○  | ○  | ○  | ○  | ○   |
| 27       | 3/4"   | ○              | ○  | ○  | ○  | ○  | ○  | ○  | ○  | ○   |
| 34       | 1"     | ○              | ○  | ○  | ○  | ○  | ○  | ○  | ○  | ○   |
| 42       | 1 1/4" | ○              | ○  | ○  | ○  | ○  | ○  | ○  | ○  | ○   |
| 49       | 1 1/2" | ○              | ○  | ○  | ○  | ○  | ○  | ○  | ○  | ○   |
| 60       | 2"     | ○              | ○  | ○  | ○  | ○  | ○  | ○  | ○  | ○   |
| 76       | 2 1/2" | ○              | ○  | ○  | ○  | ○  | ○  | ○  | ○  | ○   |
| 89       | 3"     | ○              | ○  | ○  | ○  | ○  | ○  | ○  | ○  | ○   |
| 102      | 3 1/2" | ○              | ○  | ○  | ○  | ○  | ○  | ○  | ○  | ○   |
| 114      | 4"     | ○              | ○  | ○  | ○  | ○  | ○  | ○  | ○  | ○   |
| 140      | 5"     | ○              | ○  | ○  | ○  | ○  | ○  | ○  | ○  | ○   |
| 169      | 6"     | ×              | ○  | ○  | ○  | ○  | ○  | ○  | ○  | ○   |
| 219      | 8"     | ×              | ○  | ○  | ○  | ○  | ○  | ○  | ○  | ○   |

## LEGEND

- - Manufacturing in pipe sections
- - Manufacturing in cutted pipe sections
- ×



# PHYSICAL PROPERTIES OF MATERIALS

## THERMAL CONDUCTIVITY, $\lambda$

EN ISO 8497  
ASTM C335

| MEAN TEMPERATURE(°C)   | 10    | 50    | 100   | 150   | 200   | 250   | 300   | 350   | 400   |
|------------------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| $\lambda$ (W/m.K)      | 0.033 | 0.039 | 0.045 | 0.054 | 0.064 | 0.074 | 0.088 | 0.101 | 0.119 |
| $\lambda$ (kcal/h.m.K) | 0.028 | 0.034 | 0.039 | 0.046 | 0.055 | 0.064 | 0.076 | 0.087 | 0.102 |

## FIRE REACTION

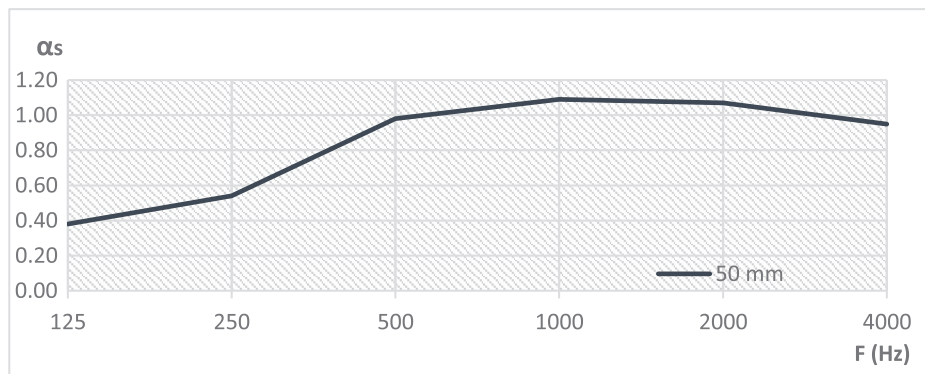
Incombustible

EN 13501-1  
ASTM E84

## ACOUSTICAL ABSORPTION COEFFICIENT, $\alpha_s$

EN ISO 354

| THICKNESS<br>50 mm | F (Hz) | 125  | 250  | 500  | 1000 | 2000 | 4000 |
|--------------------|--------|------|------|------|------|------|------|
| $\alpha_s$         |        | 0.38 | 0.54 | 0.98 | 1.09 | 1.07 | 0.95 |



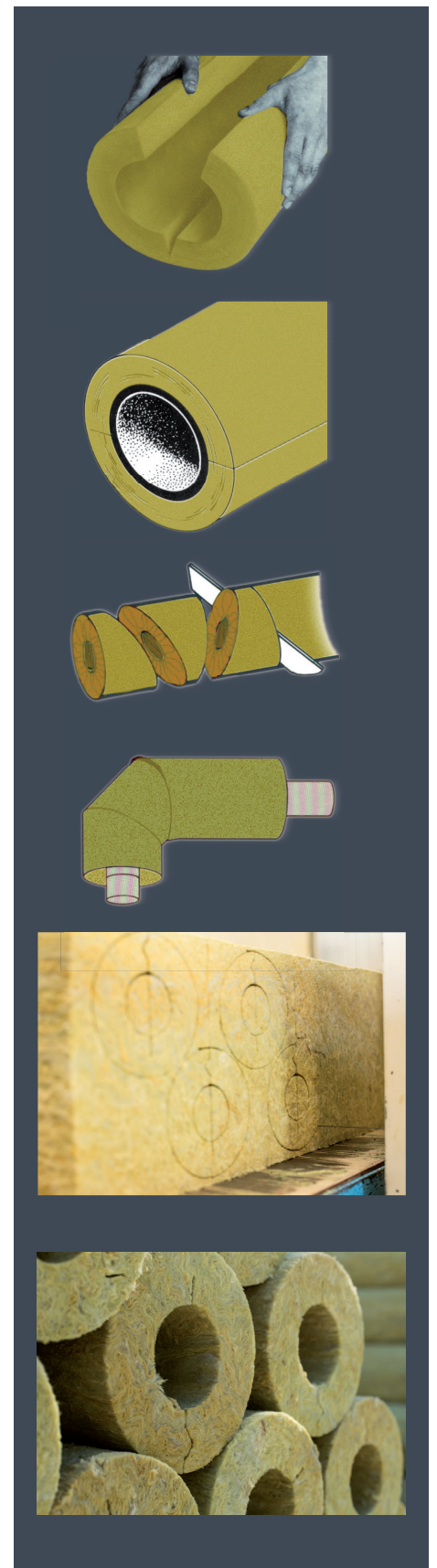
## EQUIVALENT ABSORPTION COEFFICIENT, $\alpha_w$

EN ISO 11654

$\alpha_w = 0.90$  CLASS A

## OTHER PROPERTIES

|                                                      |                                                                                |
|------------------------------------------------------|--------------------------------------------------------------------------------|
| DIMENSIONAL STABILITY, $\Delta\epsilon$ [NP EN 1604] | 23 °C / 90% HR: the relative deviations (length and width) doesn't exceed 0.0% |
| WATER ABSORPTION [ASTM C1104 / C1104M]               | WS $\leq$ 1.00 kg/m <sup>2</sup>                                               |
| WATER VAPOUR PERMEABILITY [EN ISO 12572]             | 0.05 g/m <sup>2</sup> /24h (depending of the aluminium facing)                 |
| WATER VAPOUR DIFFUSION FACTOR [EN ISO 14303]         | $\mu = 1.00$                                                                   |
| AIR FLOW RESISTIVITY [EN 29053]                      | AF > 80 kPa.s/m <sup>2</sup> (for unfaced product)                             |



ER-0304/2021

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TYPE APPROVED PRODUCT  
MED - B / MED - D

DNV

