

# Wiking® Refrac

**Wiking® Refrac is a round, monofilament fibre made of polypropylene and possesses a number of fantastic properties. The fibres are developed for use in fireproof materials and for casting purposes at high temperatures.**

**This results in reduced wastage and improved application opportunities in the finished products.**

## Advantages and Properties

- Reinforces and improves fireproof materials
- Reduces the wastage rate in the end product
- Reduces the CO<sub>2</sub> discharge

## General Applications

- Chinaware such as wash basins and toilets
- Firebricks for high and low temperature ovens
- Fire-retardant materials
- All forms of clay earthenware e.g. bricks and roof tiles
- Medicine industry.

### Specifications - Wiking® Refrac

Wiking® Refrac has the following technical properties:

Thickness:	15-110 micron
Length:	3, 4, 6, 8, 12 and 18 mm
Maximal load approx.:	300 MPa
Elongation:	130-180%
Softening temperature:	140-150°C
Melting temperature:	165°C
Dosing:	0.9 - 2.0 kg/cu m

## Application

The Wiking® Refrac fibre is used in the fireproof matrix to guarantee an optimal stress distribution and apart from this, it gives stronger cohesion of the matrix. Porosity is created in the actual burning process of the fireproof material as the fibres will melt away.

As the fibres rest in a 3-dimensional structure in the matrix, the advantage of having moist and steam escape from the material is achieved. Thus the risk of crack formation and fragmentation is reduced both during the burning and after the burning.

In artificial prostheses the opportunity is increased that musculature may grow into the prosthesis as the fibres melt away in the burning process.

## Thermal properties:

Wiking® Refrac has very low thermal conductivity and a low melting temperature

- Softening temperature approx. 140-150° C
- Melting temperature approx. 165° C

## Absorption of moisture:

Absorption of moisture:  
- at 20° C/65%  
R.H. 0.05%  
Absorption of water: < 0.1%

Wiking® Refrac has the lowest absorption of moisture of all fibres, and this guarantees dry fibres.

## Chemical and biological resistance:

All Wiking® Refrac fibres demonstrate substantial resistance to acids and alkalis and most organic chemicals. To this can be added that they do not rot, and they will not be attacked by insects or micro-organisms.

## Electrostatic properties:

Wiking® Refrac has a negligible tendency of developing static electricity.

## Dimensions:

Wiking® Refrac is available in thicknesses from 15 - 110 micron and in various lengths. The application of thin fibres means more fibres in the mixture, but this requires a special, highly effective mixing machine.

## Delivery:

Wiking® Refrac is delivered in cartons of 25-35 kg on pallets with 600-840 kg. (24-32 cartons).

Danish Fibre Production's technical division is at your service and will be pleased to give you advice concerning the correct use of our products as is required.