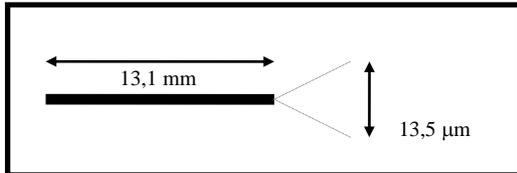


## AR V 13 - MO

### Description

Glass fiber in form of filaments used to reinforce concrete and render mortars, designed for a correct dispersion in contact with aqueous mixtures

### Geometry



Length (L): 13,1 mm

Filament Diameter 13,5 μm

Number of fibers/kg: > 200.000.000

### Mechanical Properties

Traction strength ( $\sigma_M$ ): 1620 MPa

Breakage elongation: 2.4%

Breaking Strength: 0.4N/TEX

Strength Length ( $A_R$ ): 165 mm(Stiffness)

### Chemical Composition

SiO<sub>2</sub>: >58,7

ZrO<sub>2</sub>: 19,1

CaO: 6.1

Na<sub>2</sub>O: 13,7

K<sub>2</sub>O: 1.67

Al<sub>2</sub>O<sub>3</sub>: <0.3

Fe<sub>2</sub>O<sub>3</sub>: <0.5

Specific Weight: 2.70

Alkali Strength: High

Acid Strength: High

Melting Point > 1500 °C

Thermal Conductivity: Low

Electric Conductivity: Low

### Certificates of Approval

UNE 88.501

### General Mixing Recommendations

#### *In the mixer*

1. The fibers must be introduced in fresh, rendering mortar or single layer mortar directly.
2. They should never be added to the mixing process as first component.
3. Make sure the fibers disperse perfectly in the mixer or blender
4. Generally 2kg of V13-MO per 1m<sup>3</sup> of mortar or 200gr of V13-MO per 100kg of single layer mortar is recommended although different mixes can be tried for specific purposes.
5. Mixing time typically 1 or 2 minutes

### Recommended dose

Minimum: 2kg/m<sup>3</sup>

### Packing Information

- The delivery is carried out in 200gr plastic bags or 20kg sacs.
- Pallets. should be protected from rain

### Safety

The use of cut-safe gloves and safety goggles is recommended when treating the fibers. Prolonged contact may cause irritations to skin and eyes.

### Applications

- This type of fibers can be used in different applications, whenever a strong reduction of cracking due to plastic shrinkage is required. It is especially recommended if you are looking for a finish without traditional fibers showing up in the surface of the render mortars.
- The main objective is the reduction and the control over cracking.

- The most typical applications are:

- ◆ **RENDERING MORTARS**
- ◆ **SPECIAL READY TO USE SINGLE LAYER MORTARS**
- ◆ **PAINTS**
- ◆ **CHLORINE RUBBERS**

### Advantages

The use of AR Glass Fiber offers several advantages:

1. **Drastic reduction of cracks** caused by the following situations shrinkage, quick drying, temperature gradient, inefficient expansion, setting, etc.
2. **Energy absorption** thanks to the multi-dimensional uniform distribution of the concrete mass.
3. Its more than 200.000.000 fibers per KG **reduce the tension produced in the concrete during hydration process**
4. The perfect fiber distribution gives the mortars **multi-directional strength**, so the cracks can be repaired or avoided at the time they appear.
5. **Significant reduction of permeability** of mortars. This factor makes the renders more perdurable, it is less affected by frost and the corrosion of inner metallic structures.
6. **Better impact resistance**, less fragmentation and slight increase in all mechanical properties.
7. The mortars/renders become more **ductile and tough**.
8. **No ugly marks** on the surface as the fibers are very fine
9. Ideal to use in spray up concrete.
- 10 **High chemical strength:** The noble nature of glass permits correct behavior in acid and alkali environments.

11 It does not absorb any material therefore is **compatible with any other additive.**