



# Anti-Crak® HP

## Cem-FIL® Chopped Strands to improve Mechanical Properties of Concrete and Mortars

Anti-Crak® HP fibers are part of Cem-FIL® product range

### PRODUCT DESCRIPTION

**Anti-Crak® HP** (High Performance) is an engineered high integrity AR-glass chopped strand designed for use in the reinforcement of concrete, renders and mortars.

**Anti-Crak® HP** chopped strands are suitable for all types of concrete mixes and have a sizing system (coating) optimized for mixing. The low-tex construction allows efficient reinforcement at relatively low dosages (in weight) compared to conventional steel reinforcement.

### APPLICATIONS

**Anti-Crak® HP** has been developed to improve the mechanical properties of concrete mixes. It is used mainly for floor screeds, slabs, and for the preparation of high performance pre-bagged mixes of special mortars and renders.

AR glass reinforcement has a similar density to concrete and does not float. It provides a homogeneous dispersion of the fibers within the concrete mix.

**Anti-Crak® HP** is recommended for shotcrete in very aggressive environments, or for fire-protection of structural frames.



### ADVANTAGES AND BENEFITS

- Control and prevention of cracking in fresh and hard concrete and mortars
- Overall enhancement of durability and mechanical properties of concrete
- Improves mechanical properties of hardened concrete
- Excellent workability
- Allows high dosages without affecting the workability
- Virtually invisible on finished surface
- Does not corrode
- Homogeneous mix
- No additional water needed
- Safe and easy to handle



### FEATURES

- Fiber length: 6 mm, 12 mm, 18 mm, 24 mm, 36 mm– 1/2", 3/4", 1", 1 1/2"
- Filament diameter: 14 µm– 0.000546"
- Specific Gravity: 2.68 g/cm<sup>3</sup>
- Modulus of elasticity: 72GPa – 10 x 10<sup>6</sup> psi
- Loss on Ignition: 0.8% (ISO 1980: 1980)
- Moisture: 0.3% max (ISO 3344: 1977)
- Material: Alkali Resistant Glass\*
- Softening point: 860°C – 1580°F
- Electrical Conductivity: Very low
- Chemical Resistance: Very high
- Linear weight: 45 - 500 Tex (g/km)
- Tensile Strength: 1,700 MPa – 250 x 10<sup>3</sup> psi

\* Our fibers are manufactured with high Zirconium content in compliance with ASTM C1666/C 1666/M-07 and EN 15422 and under the recommendations of PCI and GRCA

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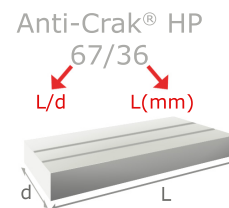
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### HOW TO USE – DOSAGES

Fibers can be introduced directly at the ready mix plant or in the blender for mortars or directly in the concrete truck.

For mortars, recommended dosage varies from between 0.2 to 1% by weight

For concrete, recommended dosage



Benefits	Low addition rate	High addition rate	
	WWR Replacement	WWR Replacement / rebars #3, #4	Steel Replacement / rebar
Recommended dosage	0.9 - 1.5 kg/m <sup>3</sup> 1.5 - 2.5 lb/cu.yd	1.5 - 5 kg/m <sup>3</sup> 2.5 - 8 lb/cu.yd	5 - 15kg/m <sup>3</sup> 8 - 25 lb/cu.yd
Anti-Crak® Fibers	HP 74/12 HP 110/18	HP 45/24 HP 67/36	HP 67/36

### PACKAGING and STORAGE

Anti-Crak® HP chopped strands are packed in individual paper bags (water dispersible) or in plastic bags.

Anti-Crak® HP chopped strands should be stored away from heat and moisture, and in their original packaging.

The best conditions are:

- Temperature: 15°C – 35°C.
- Humidity: 35% – 65%.

### QUALITY STANDARDS – CERTIFICATION

- Cem-FIL® fibers are manufactured under a quality Management System approved to ISO 9001. Additionally, the actual performance of Cem-FIL® fibers is subject to independent assessment and approval in Germany (Zulassung N° Z-3.72.1731).
- Cem-FIL® fibers meet safety standards according to European Directive 99/45/EC, 67/548/EEC and their latest amendment.

#### Cem-FIL® Customer Service

Alcalá de Henares, Spain  
Tel. : + 34.91 885 58 03  
Fax : + 34.91 885 58 34  
[Cem-fil@owenscorning.com](mailto:Cem-fil@owenscorning.com)

[WWW.CEM-FIL.COM](http://WWW.CEM-FIL.COM)



## OCV™ Reinforcements

**OWENS CORNING**  
**COMPOSITE MATERIALS, LLC**  
ONE OWENS CORNING PARKWAY  
TOLEDO, OHIO 43659  
1.800.GET.PINK™  
[www.owenscorning.com](http://www.owenscorning.com)  
[www.ocvreinforcements.com](http://www.ocvreinforcements.com)

**EUROPEAN OWENS CORNING**  
**FIBERGLAS, SPRL.**  
166, CHAUSSÉE DE LA HULPE  
B-1170 BRUSSELS  
BELGIUM  
+32.2.674.82.11

**OWENS CORNING – OCV ASIA PACIFIC**  
SHANGHAI REGIONAL HEADQUARTERS.  
2F OLIVE LVO. MANSION  
620 HUA SHAN ROAD  
SHANGHAI 200040  
CHINA  
86.21.62489922

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