



## B STRATOS RS

*High technical fiber for shotcrete*



<b>MATERIAL:</b>	100% virgin polypropylene
<b>TENSILE STRENGTH:</b>	293 - 335 N/mm <sup>2</sup>
<b>SPECIFIC GRAVITY:</b>	0,915 gr/cm <sup>3</sup>
<b>MELTING POINT:</b>	160-170° C
<b>IGNITION TEMPERATURE:</b>	> 320° C
<b>SALT, ALKALI AND ACIDS RESISTANCE:</b>	high
<b>WATER ABSORPTION:</b>	none
<b>PACKING:</b>	pre-dosed bags (PE or watersoluble) or big- bags according to mixer capacities and necessities of the building site



**B STRATOS RS** is a high technical polypropylene fiber for wet and dry shotcrete. The shotcrete reinforced with B Stratos RS can be used for the safety measures of construction quarry, slopes, rocks and in general in tunnel.

With B Stratos RS you can obtain excellent values of **workability / absorption energy**, able to cover all the areas of application requested, for example from Austrian directives.

Moreover, B Stratos RS can be used also as alternative to steel fibers, macro fibers and meshes.

The results show in fact that is possible to reach all the classes of **load safety factor and usability**.



### **GENERAL ADVANTAGES:**

- excellent reduction of rebound
- concrete easily sprayed and easy handling, also at maximal dosages
- they don't create obstacles and damages to the spraying accessories, pumps, robots, etc...
- reduction of working time and therefore more rapid progress in tunnel
- lower stocking and transport costs, lower costs of workforce
- lower risk of injury during working phase compared to other systems of reinforcement
- lower dosages
- excellent adherence with the concrete matrix
- **equal distribution and separation and constant number of fibers in the concrete**
- three-dimensions reinforcement
- they don't corrode
- chemically resistant
- tested according to Guideline "Fiber reinforced concrete" edition 2008, Guideline ÖVBB "Shotcrete" and SIA 162/6



## SOME EXAMPLES OF RESULTS:

The classification of the fiber reinforced shotcrete according to the Guideline ÖVBB "Fiber reinforced concrete" depends as follow:

1a) at the building site on 04/2013

**B Stratos RS 2050 :**

Mix 5 kg: class **700-1000 J**

Mix 9 kg: class **800-1200 J**

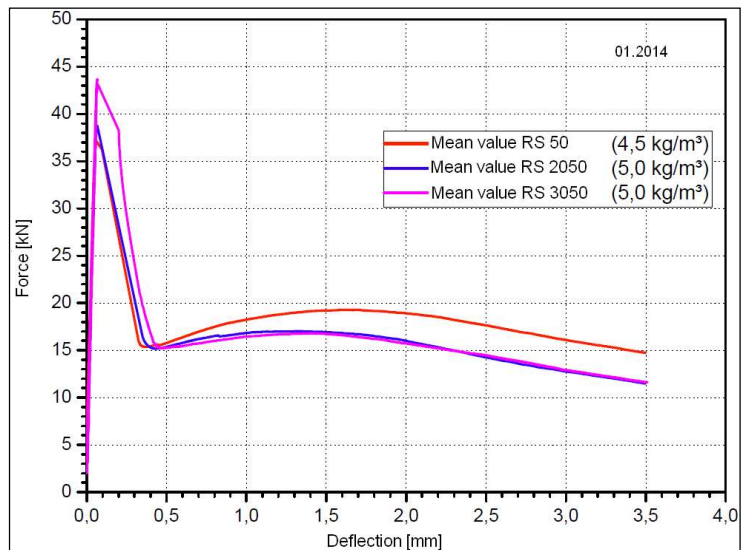
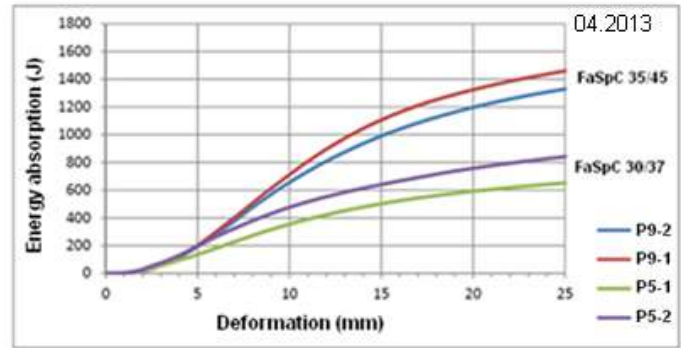
(Shotcrete sprayed on wall at the building site)

1b) on laboratory on 01/2014:

**B Stratos RS 50 :**

4,5 kg/m<sup>3</sup> : working capacity = 1020 J

2) **B Stratos RS 50** : with a dosage of 4,5 kg/m<sup>3</sup> the following classes of usability and load safety factor were reached: **G2-T4**



## USING DIRECTIONS:

- Variables dosages depending on the type of requested concrete and on the exigencies of building site
- Mix preferably in the concrete factory with aggregates and cement, at the end add water. Example of mixing time: tot. about 4-6 minutes
- In case of dry shotcrete we suggest:
  - a temperature not higher than 100°-110°
  - for a reduction of the dispersion of the fibers: reduce the distance of the lance from wall and lower the pressure

*For better advice ask to our technical team*

The values indicated are confirmed from official test report. Originals are at disposal.

We can guarantee the performance classes and the working capacity values achieved during our tests of January 2014, according to Austrian Guideline, on condition that the class of concrete is reached and our directions for use are respected.

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