

# Product Data Sheet



## Rockbrake® RB215ELS–Roxul®1000

Engineered mineral fibre (Note Q) for application in friction materials

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Rockbrake® RB215ELS–Roxul®1000 is a premium quality inorganic mineral fibre. Its percentage of non fibrous material of max. 0.50 % >63 microns is extremely low. This results in even less material– and rotor wear and reduces NVH issues compared with the standard Rockbrake® RB215–Roxul®1000. Its surface treatment results in better reinforcement properties under extreme braking conditions. This fibre has been specially developed for use in NAO non–steel (“ceramic”) formulations.

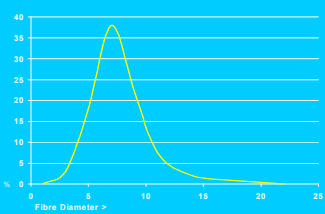
### Roxul®1000 chemistry =biosoluble chemistry

All Roxul®1000 products are worldwide exonerated from classification as a carcinogen.

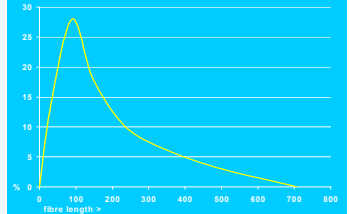
### Chemical Analysis

	Min.	Max.
SiO <sub>2</sub>	38 %wt	43 %wt
Al <sub>2</sub> O <sub>3</sub>	18 %wt	23 %wt
CaO+MgO	23 %wt	28 %wt
FeO	4.5 %wt	8 %wt
K <sub>2</sub> O+Na <sub>2</sub> O		4.5 %wt
Others		6 %wt

### Typical average fibre diameter



### Typical average fibre length



### ADVANTAGES OF ROCKBRAKE® RB215ELS–ROXUL®1000:

- Rockbrake® RB215ELS–Roxul®1000 also positively influences the following parameters :
  - material wear
  - noise and vibrations
  - rotor wear
- Rockbrake® RB215ELS–Roxul®1000 is consistent in quality in terms of :
  - chemical composition
  - surface treatment
  - purity
  - fibre length
  - fibre diameter
- Using Rockbrake® RB215ELS–Roxul®1000 gives formulators the opportunity to decrease the use of other fibres in the matrix (aramid, steel, glass, ceramic, copper, brass), resulting in significant cost savings on a price per volume base.

Parameter	Average/Tolerance	Testmethod
Non-Fibrous Material	Norm. Max. N > 63 µm 0.2%wt 0.5%wt	TV 316
Fibre Length	150 ± 25 micron	TV 305
Ignition Loss	max. 0.3 %wt	TV 302
Moisture Content	max. 0.1 %wt	TV 302
Fibre diameter (mass wt. av.)	approx. 9.0 micron	TV 165
Fibre diameter ( num. av.)	approx. 5.5 micron	TV 165
Specific surface area	approx. 0.20 m <sup>2</sup> /g	TV 165
Hardness	6 Moh	
Melting Point	> 1000 °C	Furnace, Visual
Specific Density	2.75 ± 0.15 g/cm <sup>3</sup>	
Colour	Grey/Green	Visual

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ISO 9001 LF007.F08