

## Declaration of conformity

of the manufacturer  
Strobel Quarzsand GmbH  
Freihung sand  
plant

The  
**aggregates for mortar**  
which are listed in the enclosed grade index  
meet the requirements of EN 13139:2002-08

The plant's own production check done by the manufacturer has been certified by the  
**Bayerischer Baustoffüberwachungs- und Zertifizierungsverein -BAYBÜV- e.V.**  
**Beethovenstr. 8, 80336 Munich.**

**Certificate no.: 1497-CPD-252/1.2-2009**

Freihung, 14.03.2011  
.....  
Place, date

B. Jester, production manager  
.....  
Name and position of the signatory

**GRADE INDEX**  
**of the aggregates for mortar in accordance with EN 13139**  
 with the details required for CE marking

Manufacturer (company): Strobel Quarzsand GmbH  
 Place of extraction (works): Freihungssand  
 Number of the certificate: 1497-CPD-252/1.2-2009


 Created on:  
 14.03.11  
 1497

Type of aggregate: silica sand

**Fine aggregate**

| Grade no. | Grain group | Typical grain composition                   |       |       |       |       |       |       |       |       |                                    |
|-----------|-------------|---|-------|-------|-------|-------|-------|-------|-------|-------|------------------------------------|
|           |             | Throughput in M.-% through the screen in mm |       |       |       |       |       |       |       |       |                                    |
|           |             | 0.063                                       | 0.090 | 0.125 | 0.180 | 0.250 | 0.355 | 0.500 | 0.710 | 1.000 | Limit deviation in accordance with |
| BCS 313   | 0/0.25      | 0.5   | 6     | 36    | 94    | 100   | -     | -     | -     | -     | Tab. B1                            |
| BCS 413   | 0/0.25      | 0.5   | 8     | 40    | 98    | 100   | -     | -     | -     | -     | Tab. B1                            |
| BCS 215   | 0/0,25      | 0,5   | 4,6   | 31,4  | 83,1  | 99,6  | 100   | -     | -     | -     | Tab. B1                            |
| BCS 319   | 0/0.50      | 0   | 6.0   | 6.5   | 44.5  | 94.5  | 99.5  | 100   | -     | -     | Tab. B1                            |
| BCS 250   | 0/0.71      | 0.1   | 0.2   | 0.7   | 2.2   | 7.0   | 12.3  | 43.9  | 97.2  | 100   | Tab. B1                            |

"Characteristic values not stipulated" for the categories: PSV, SZ, LA, AAV, Mbe, An

| Grade no.  | Grain group | Characteristics                                   |   |                             |   |                             |  |                                  |  |                          |
|------------|-------------|---|---|-----------------------------|---|-----------------------------|--|----------------------------------|--|--------------------------|
|            |             | with category / threshold value / specified value |   |                             |   |                             |  |                                  |  |                          |
|            |             | Fines fraction<br>f                               | Grain gross density<br>in mg/m <sup>3</sup> | Water absorption<br>in M.-% | Lightweight organic impurities<br>in M.-% | Chloride content<br>in M.-% | Acid-soluble sulphate AS<br>in M.-%              | Total sulphur content<br>in M.-% | Solidification and hardening-changing constituents<br><br>Sodium hydroxide solution test | Alkali sensitivity class |
| BCS<br>313 | 0/0.25      | f <sub>3</sub>                                    | 2.65  | 0.03                        | 0.0                                       | 0.0002                      | < 0.2<br>(Requirement AS <sub>0.2</sub> met)     | < 0.2                            | Requirements met   | E1                       |
| BCS<br>412 | 0/0.25      | f <sub>3</sub>                                    | 2.65  | 0.03                        | 0.0                                       | 0.0004                      | < 0.2<br>(Requirement AS <sub>0.2</sub> met)     | < 0.2                            | Requirements met   | E1                       |
| BCS<br>215 | 0/0,25      | f <sub>3</sub>                                    | 2,65  | 0,03                        | 0,0                                       | 0,0006                      | < 0,2<br>(Anforderung AS <sub>0.2</sub> erfüllt) | < 0,2                            | Anforderungen erfüllt  | E1                       |
| BCS<br>319 | 0/0.50      | f <sub>3</sub>                                    | 2.64  | 0.03                        | 0.0                                       | 0.0003                      | < 0.2<br>(Requirement AS <sub>0.2</sub> met)     | < 0.2                            | Requirements met   | E1                       |
| BCS<br>250 | 0/0.71      | f <sub>3</sub>                                    | 2.64  | 0.03                        | 0.0                                       | 0.0004                      | < 0.2<br>(Requirement AS <sub>0.2</sub> met)     | < 0.2                            | Requirements met   | E1                       |