

GROUTTECH
Industrieweg 51

NL-8071 CS Nunspeet
Nederland

Geesthacht, 15. May 2019

Test Certificate
according to the KTW recommendations
(Federal Health Gazette 20, 1977ff)

(This test was implemented in accordance with the requirements of the KTW-recommendation of October 2008.)
Note: The actual state of the KTW recommendations given by the German Federal Environmental Agency (UBA) was published in March 2016.

Applicant: GROUTTECH
Industrieweg 51
NL-8071 CS Nunspeet
Nederland

Product: GROUTTECH 260
Polyacrylate injection gel

Test type: Product testing

According to the test report dated May 04, 2019 the test boards Lab.-No. 115765/00/01
GROUTTECH SW Protect M fulfill the requirements for use in the drinking water sector of the KTW recommendations for the following

| Application area(s) | Temperature range(s) | | |
|---------------------------|----------------------|------------|-----------|
| | cold water | warm water | hot water |
| A Pipes | -- | -- | -- |
| B Containers | -- | -- | -- |
| C Equipment gear | -- | -- | -- |
| D1 Large-surface sealants | fulfilled | -- | -- |
| D2 Small-surface sealants | -- | -- | -- |

if the material is suitable for these in technical terms.

Head of laboratory:
(Dr. S. Dageförde)



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Test report

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| | | | |
|-----------------|----------------------------|-----------------------------------|---------------------------------------|
| Laboratory-No.: | 115765/00/01 | KTW-classification: | D1. "Large-surface sealants " |
| Manufacturer: | GROUTTECH | Proportion of surface and volume: | 1:25 cm ² /cm ³ |
| Type of sample: | polyacrylate injection gel | Test sample surface: | 174.7 cm ² |
| Sample name: | GROUTTECH 260 | Test water volume: | 4370 mL |

Test results:

| Parameter | after 3 days | after 6 days | after 9 days | KTW-requirements after 9 days |
|--|--------------|--------------|------------------|---|
| pH | 8.38 | 8.26 | 8.46 | 6.5–9.5 DIN 38404 C5 |
| absorption coefficient „colour“ (436nm)1/m | 0.10 | < 0.10 | < 0.10 | n.c.i. (≤0.5) DIN EN ISO 7887 |
| Turbidity TE/F | < 0.10 | < 0.10 | < 0.10 | n.c.i. (≤1.5) DIN EN ISO 7027 |
| Tendency of foam formation | n.c.i. | n.c.i. | n.c.i. | n.c.i. |
| Threshold odour number (20°C) | 1 | 1 | 1 | ≤2 |
| TOC (mg C/m ² *day) | 33.2 | 8.3 | 4.2 | ≤60 DIN EN 1484 |
| Oxidation reaction with chlorine (mg Cl ₂ /m ² *day) | 13.7 | 11.6 | 10.4 | ≤75 DIN EN ISO 7393-2 |

n.c.i. = not considerably influenced

Assessment:

The provided test samples of **GROUTTECH 260** fulfill the requirements for use in the drinking water sector according to the KTW recommendations of the German Federal Health Department for the application range D1 " Large-surface sealants" (surface/volume = 1:25 cm²/cm³).

Head of laboratory:
 (Dr. S. Dageförde)