

Test Certificate

No. 2015/21962/9311
28/07/2015 mat-loe

**for the test
of the content of crystalline silica, toxic and
carcinogenic components of abrasive**

1. Client CHEMEGRA GmbH & Co.KG
Mittelstraße 2b, 66763 Dillingen Saar

Order dated: 27/05/2015

Abrasive agent received on: 01/06/2015

2. Information on the abrasive:

2.1. Trade name
(trade identification reference) Gradill

2.2. Manufacturer see client

2.3. Type of abrasive agent:
(eg: mineral abrasives, boiler slag,
melting pot slag, Slag sand
metal smelting slag)

Grain: 0 - 3

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3. Detailed information on the abrasive agent provided

3.1. Sample of abrasive taken by or in presence of

Client	<input checked="" type="checkbox"/>
Manufacturer	<input type="checkbox"/>
Seller / agent	<input type="checkbox"/>
User	<input type="checkbox"/>
Technical monitoring body of the BG	<input type="checkbox"/>
Trade supervisory body	<input type="checkbox"/>
Testing agency / testing body	<input type="checkbox"/>

Independent of the total quantity of the abrasive provided for testing, only a random sample will be used in the laboratory analysis.

3.2. Manufacturer information on the composition of the abrasive

Calcium oxide	33 – 46 %	Sulfur	0,6 – 1,6 %
Silicon dioxide	30 – 43 %	Iron	0,1 – 2 %
Aluminum oxide	10 – 16 %	Titanium oxide	0,1 – 1 %
Manganese oxide	0,1 – 1 %		
Magnesium oxide	4 – 8 %		

3.3. Manufacturer information on the properties and intended uses

Preparation of surfaces before application of coating materials

4. Requirements for abrasive agents and tests of the requirements

4.1. Requirements

According to the requirements of Paragraph 3.2, Chapter 2.24 (Work with abrasive agents) of the BGR 500, dated October 2004, version 18 February 2005 (up to January 2005: § 7 of the BGV D26 "Work with abrasive agents") the content of crystalline silica (quartz, cristobalite, tridymite) in the abrasive agent may not exceed 2 weight percent. In addition, it must be assured that the sum of all the toxic and carcinogenic metals or their compounds (calculated as metal; chromate calculated as CrO₃) contained in the abrasive agent does not exceed 2 weight percent. Carcinogenic metals and their compounds (each calculated as metals; chromate calculated as CrO₃) may not exceed 0.2 weight percent. Beryllium, cadmium, cobalt (calculated as a metal), and chromate (calculated as CrO₃) may not exceed 0.1 weight percent individually.

4.2. Testing

Tests are conducted using known mineralogical and chemical analytic procedures (X-ray diffracton, ICP mass spectrometry, photometry).

5. Test results

The mineralogical and chemical analysis of the abrasive agent sample found, in weight percentage(s):

5.1. Crystalline silica components

Quartz:	< 1
Cristobalite:	—
Tridymite:	—
Sum of cristalline components:	< 1

5.2. Toxic components

Antimony:	< 0,010
Lead:	< 0,010
Cadmium:	< 0,010
Tin:	< 0,010
Sum of the toxic components:	< 0,04

5.3. Carcinogenic components

Arsenic:	< 0,010
Beryllium:	< 0,010
Chromate:	< 0,0002
Cobalt:	< 0,010
Nickel:	< 0,010
Sum of the carcinogenic components:	< 0,04

5.4. According to the present analytic results, the permissible limits for the sum of the

crystalline silica components exceeded	<input type="checkbox"/>	not exceeded	<input checked="" type="checkbox"/>
carcinogenic components exceeded	<input type="checkbox"/>	not exceeded	<input checked="" type="checkbox"/>
carcinogenic and toxic components exceeded	<input type="checkbox"/>	not exceeded	<input checked="" type="checkbox"/>

6. Assessment

Based on the results of the analysis and the present manufacturer guarantee, and assessed in comparison to the requirements for non-silica-containing abrasive agents as defined in the BGR 500, dated October 2004, version 18 February 2005 (up to January 2005: § 7 of the BGV D26 "Work with abrasive agents") the requirements of Paragraph 3.2, Chapter 2.24 (Work with abrasive agents) the abrasive agent named under point 2. above are

fulfilled

not fulfilled

Remarks:

7. Guarantees of the manufacturer (agent / seller) or the user

If the present Test Certificate is to be used by the manufacturer (seller / agent) as evidence that the abrasive agent named under point 2. above fulfils the requirements, of the BGR 500, dated October 2004, version 18 February 2005 (up to January 2005: § 7 of the BGV D26 "Work with abrasive agents") the manufacturer (seller / agent) must guarantee – in the case of a one-time use of the abrasive agent – that the compound does not deviate from the values given under point 5. above for crystalline silica, toxic, and carcinogenic compounds or that any deviation is so insignificant as to fulfil the requirements under point 4.1.

The present Test Certificate may not serve as evidence of a non-crystalline silica abrasive agent in the case of multiple or repeated use. In the latter scenario, the user must guarantee that the requirements described under point 4.1 are fulfilled.

8. Validity of the Test Certificate

This Test Certificate is valid until **July 2018**

The validity of a Test Certificate may be extended only once and only upon request. A renewed analysis of the abrasive agent is required before a new Test Certificate can be issued following such an extension.

In general, the test rules and regulations of the IFA and the general terms of business for the German Social Accident Insurance (DGUV) e.V. and of IFA apply.

IFA Institut für Arbeitsschutz der
 Deutschen Gesetzlichen Unfallversicherung

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