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Die Akkreditierung gilt für die in der Urkundenanlage
D-PL-11217-01-01 aufgeführten Prüfverfahren.

Project: Contract for Testing, Surveillance and Certification No. 11/2362
Producer/plant: ROYAL EL MINYA CEMENT COMPANY / El Minya
Order date: 29.03.2011
Purpose of sampling: Test according to EN 197-1 / Audit sampling R6 / 2021
Product: Portland cement EN 197-1:2011-11 – CEM I 52.5 R
Quantity: 5 kg Portland cement EN 197-1 – CEM I 52.5 R
Sampling date: 15.12.2021, Charge 100916
Day of delivery: 23.12.2021
Test period: January - March 2022

Berlin, 10.03.2022

i.V. Dr. Matthias Reese
Head of laboratory



i.A. M.Sc. Rico Fuchs
Testing

QM/F P A 101 a_ R.6_18.05.2021

The test results exclusively refer to the tested materials. The publication of the test report in extracts requires the written agreement of the testing laboratory in each single case.

^{a)} Information from the client. ^{k)} Edits.

1. Test results

1.1 Specific Surface, Setting Time and Soundness

Production, storage and test conditions:

Test regulation	DIN EN 196-3:2017-03; DIN EN 196-6:2019-03
Test conditions	1. Blaine, density: 3.05 g/cm ³ / porosity: e = 0.50 2. Vicat-device, Standard consistence: 29.2 % 3. Le-Chatelier

Test results:

Table 1 Determination of setting time, soundness and of specific surface

Attributes	Test result	Requirement	Evaluation ²⁾
1. Specific surface [cm ² /g]	4843	-	-
2. Initial Setting time [min]	80	≥ 45	<i>fulfilled</i>
Finish [min]	140	-	-
3. Soundness [mm]	0.8	≤ 10	<i>fulfilled</i>

1.2 Compressive Strength

Production, storage and test conditions:

Test regulation	DIN EN 196-1:2016-11
Date of testing	27.01.2022 Early strength 2 days 17.02.2022 Standard strength 28 days

Test results:

Table 2 Determination of strength

Prism No.	Compressive strength [MPa]		
	Early strength		Standard strength
	2 days	7 days	28 days
1	47.4	-	71.4
	48.7	-	71.0
2	46.6	-	69.6
	46.4	-	69.0
3	46.3	-	70.1
	47.0	-	70.1
Mean value	47.1	-	70.2
Requirement	≥ 30	-	≥ 52.5
Evaluation²⁾	<i>fulfilled</i>	-	<i>fulfilled</i>

1.3 Chemical Analysis

Production, storage and test conditions:

Test regulation	DIN EN 196-2:2013-10
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Test results:

Table 3 Determination of chemical properties

Property	Test result [mass-%]	Requirement [mass-%]	Evaluation ²⁾
Loss on ignition	1.92	≤ 5.0	<i>fulfilled</i>
Insoluble residue	0.17	≤ 5.0	<i>fulfilled</i>
Sulfate content (as SO ₃)	3.45	≤ 4.0	<i>fulfilled</i>
Chloride content (Cl ⁻)	0.05	≤ 0.1	<i>fulfilled</i>

^{a)} Information from the client. ^{b)} Edits. ²⁾ The statement of conformity is made according to the requirements of the specifications mentioned and according to the first binary Kiwa decision rule with the associated confidence level.

This evaluation is a pure statement of conformity by the test centre. It does not replace the subsequent assessment and evaluation of the certification body and the confirmation of conformity respectively.