



اسم العميل : شركة SILOX Germany Building Materials
اسم المشروع : مشروعات الرصف الخرساني طرق معابر شرق قناة السويس & الدائري الإقليمي
الموضوع : اعتماد صلاحية مادة SILOX Cure & SILOX ZR 80
رقم الصادر : 1283
التاريخ : 2025/11/16

السادة / شركة SILOX Germany Building Materials

تحية طيبة وبعد،

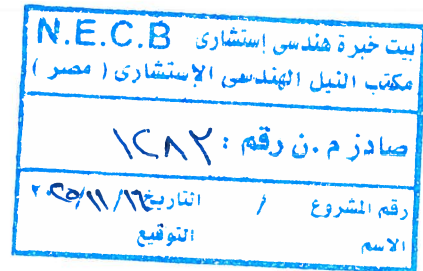
بالإشارة إلى طلب شركتكم الموقرة بخصوص طلب اعتماد إستخدام المواد:

SILOX Cure & SILOX ZR 80

لإستخدامها بمشروعات الرصف الخرساني الدائري الإقليمي وطرق معابر شرق قناة السويس.
يرجى التكرم بالعلم بأنه تمت مراجعة ما ورد ببيان مواصفات المادة "Data Sheet"، والإختبارات
السابق إجرائها على المادة بمعامل المركز القومي لبحوث الإسكان والبناء برقم 1055 بتاريخ
2025/10/21، ووفقاً لنتائج المراجعة فقد تم اعتماد المادة ولإمانع من إستخدامها بمشروعات الرصف
الخرساني لطريق الربط بين معابر قناة السويس والطريق الدائري الإقليمي مع مراعاة تنفيذ شروط
التخزين الصحيحة وتعليمات المصنع.

وتفضلوا بقبول فائق الاحترام،

مكتب النيل الهندسي الاستشاري (مصر)
دكتور مهندس / أنور فاروق القاضي
المرئىس وعضو المنتدب



كود النموذج : RAW-FRM-21-02

خطاب إرسال نتائج إختبارات إلى العميل

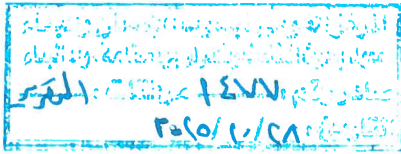
تليفون: ٠١٢٠٠٢٥١٦٧ الأيميل: - اسم المشروع : الدائري الاقليمي - معيت قناة السويس
- الإستشارى: مكتب النيل الهندسى - كود العينة : I4182, Iad 4183 تاريخ الطلب:
٢٠٢٥/١١/٢ ميعاد الاستلام: ٢٠٢٥/١٠/١٩

مرجعيات: ٢٠٢٥/٣/١٤٤٩ م
عدد الصفحات : (....)

السادة/ Silox Germany Building Materials تحية طيبة وبعد:

بالإشارة إلى طلب سيادتكم بخصوص قيام المركز باجراء أختبارات Water Retention - تجهيز (لعينة Silox Cure) ، اختبارات الكود (متطلبات التجانس - IR) - تجهيز (لعينة اضافة) - والموردة بمعرفتكم .
يشرفنا أن نرسل طيه نتائج الاختبارات التى أعدت فى هذا الشأن من المعهد المختص.
وقد تم سداد التكلفة المطلوبة للمركز بمبلغ (٦٠٠٥ ج) فقط (ستة الاف وخمسة جنيها) قسيمة رقم ٠٢٨٩٤٠٠ بتاريخ ٢٠٢٥/١٠/١٩ .
وتفضلوا سيادتكم بقبول فائق الاحترام . . .

تحريرا فى ٢٠٢٥/١٠/١٩ م



وكيل المعهد
أ.د. هشام مصطفى خاطر

نائب رئيس مجلس الإدارة
لشئون البحوث والدراسات
أ.د. طارق محمد بهاء الدين
٢٠٢٥/١٠/١٩



مدير المعهد
أ.د. حسام زكريا القرموطى



(Cover Page)

Report on
One Component Zinc-Rich Primer Sample (Solvent-Base)
under the trade name SILOX EGYPT ZR 80
Manufactured and Supplied by
SILOX-Germany Building Materials


A solvent-base zinc-rich primer (one component) sample, trade name "SILOX EGYPT ZR 80", was received by the Paints, Plastics, Rubber, and Adhesives Unit at the National Research Centre (NRC). The primer sample was manufactured and submitted by SILOX-Germany Building Materials, accompanied by a letter dated 19/10/2025, requesting evaluation of certain physical properties of the primer sample.

The followings are the general description of the received sample and the test results:

1. General Description of the Delivered Sample SILOX EGYPT ZR 80

- The zinc-rich primer sample "SILOX EGYPT ZR 80" was delivered in a single sealed metal container weighing approximately 1 kg.
- The container label included only the trade name, color, production date (August 2025), shelf life (1 year from production), and the company name.
- The primer inside container was a thick, homogeneous grey liquid with no clumps or sediment.
- The primer can be easily applied on the substrate using a brush, roller, or airless spray.
- The dry paint film of the SILOX EGYPT ZR 80 is smooth, matt, and free from defects such as granulation, sagging, or pinholes.
- According to the product's technical datasheet, it is intended for use as a first coat on steel surfaces to protect against corrosion.





National Research Centre

Paints, Plastic, Rubber
and Adhesive Unit
Tahrir St., Dokki, Cairo
Tel. and Fax: 33355146



المركز القومي للبحوث

وحدة البويات والبلاستيك والمطاط والمواد اللاصقة
شارع التحرير - الدقى - القاهرة
ت مباشر وفاكس: 33355146

2- Tests of the zinc rich primer (SILOX EGYPT ZR 80) Supplied by SILOX-Germany Building Materials

Tests	Results
1. Paint Color	Dark Grey
2. Non-volatile content by weight (%)	79.9
3. Volatile content by weight (%)	20.1
4. Density (g/cm ³) at 25°C	1.72
5. Drying Time at 25°C ⁽¹⁾	
a) Touch dry (min)	30
b) Thorough dry (hrs)	4
c) Full dry (hrs)	24
6. Coverage rate for 200 µm wet film (m ² /kg) ⁽²⁾	4.65

⁽¹⁾ Drying time depends on temperature, humidity, surface roughness, porosity, and film thickness.

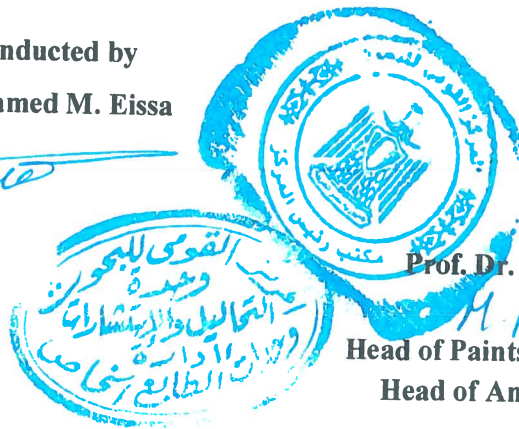
⁽²⁾ Coverage rate varies with film thickness and substrate texture.

Comments on Results

- These results represent the SILOX EGYPT ZR 80 primer sample submitted by SILOX-Germany Building Materials to the Paints, Plastics, Rubber, and Adhesives Unit at the National Research Centre. NRC is not responsible for product supply or distribution.

Tests conducted by

Dr. Mohamed M. Eissa



Approved by

Prof. Dr. Mahmoud Ahmed Abdel Ghaffar

Head of Paints, Plastics, Rubber and Adhesives Unit
Head of Analysis and Consultation Unit, NRC



Data Fact Sheet

SILOX-ZR 80



1K Zinc Rich High Solids Primer Anti - Corrosive

DESCRIPTION

SILOX ZR 80 is High Solids Primer, anti-corrosive, alkyd resin-based primer modified with zinc for protective coat. It is relatively fast drying with excellent durability and can be recoated after 1 hour from first coat to give an excellent topcoat adhesion.

Physical and chemical data

Property	Result
Basis of binder	Epoxy modified Zinc
Colour	Grey
Coverage rate for 200 µm wet film (m ² /kg)	4-5 m ² /kg
Solid Content in dry surface	80±2 %
Density (g/cm ³) at 25°C	1.70-1.80 g/cm ³
Touch Dry	30 min at 25°C
Dry to Handle	4-6 hrs. (depends on weather conditions)
Full cure	7 days
Pot life (+20°C)	Approx.90-120 min

Drying time is dependent on temperature, relative humidity and thickness; ranges is given for considering those parameters.

Uses

Product suitable as performance, zinc-based primer in coating systems for all iron structures, railings and gates. It is ideal for maintenance on painting systems where the use of an epoxy, zinc-based product is required.

Benefits & Advantages

- Highly bonded and good adhesion to steel.
- Very good resistance to water and abrasion.
- Easy to use -saving time for coating
- Good resistance for corrosion

Surface Preparation

Remove all dirt, grease, oil, salt and chemical contaminants by cleaning the surface with detergent or other suitable cleaner. Surface should be completely dry. For optimum performance, blast cleaned to a surface profile, if oxidation has occurred between the blasting and application of this product.



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CamScanner

Data Fact Sheet

SILOX-ZR 80



1K Zinc Rich High Solids Primer Anti – Corrosive

Mixing

SILOX ZR 80 is ready for use directly, just stir it before and during application with an electric stirrer and don't expose the can to direct air, it must be covered after using.

Method of application

SILOX ZR 80 can be applied by Airless Spray, Air Spray, (Pressure Pot), Brush. Avoid paint application when the temperature is below 5°C or above 45°C and relative humidity is over 80% Spraying system is recommended.

Storage

Store between 5°C - 25°C. When not in use, cans must be kept sealed. Higher temperature during storage may reduce the shelf life and may lead to gelling in the tin. Keeping it in a dry, cool and well-ventilated space, keep away from sources of heat and ignition.

Shelf Life

12 months from delivery date in original sealed containers.

Packing

SILOX ZR 80 is available in cans of 5kg, 10 kg and 15 kg

Health & Safety

- Use this product in well-ventilated area, avoid skin contact, spillage on the skin should immediately be removed with suitable cleanser, soap and water.
- Eye should be well flush with water and seek for medical attention immediately upon contact with this product.
- During the application, naked flame, welding operation and smoking is not allowed.



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SILOX-Cure Wax Base Advanced Curing Compound Formula

DESCRIPTION

SILOX Cure is a white, wax based curing compound formulated to control moisture evaporation from freshly laid concrete. It forms a continuous thin film that helps maintain hydration, reduces cracking, and supports early-age strength. The formulation gives high protection under sun exposure in both interior and exterior applications

FEATURES & BENIFITS

Reduces shrinkage; retains moisture to reduce "plastic shrinkage cracks,"
Enhances performance; increases the compressive strength over uncured concrete.
Good reflectivity, Easy to spray Forms a continuous curing membrane

USAGES & APPLICATIONS

- All concrete works
- Concrete pavement
- Exterior commercial projects, such as highways, airport runways, concrete lined canals dams.
- Concrete slabs when applied to the sub-base.

Physical & chemical properties

Colour-base state	White, wax base liquid
Drying time	120-150 min (lab test)
Curing efficiency	> 90%
density	1±0.02
Viscosity	0.02 Pa·s
PH	7-9
Solid content	> 30%



PROPERTIES

ASTM C-309, Type 2, Class A
AASHTO-M-148, Type 2, Class A

Coverage & consumption

Approx. 5 m² per litre
Low-pressure sprayer (≥280 kPa), or roller/brush
Timing After bleed water disappears and concrete is firm
Film Formation One uniform coat to achieve continuous coverage



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