BUILDING TRUST

PRODUCT DATA SHEET

Sika Thoroseal® Acryl 60

(formerly MasterEmaco® A 660)

WATER-BASED ACRYLIC BONDING AND MODIFYING ADMIXTURE

PRODUCT DESCRIPTION

Sika Thoroseal® Acryl 60 is an acrylic-polymer emulsion that enhances the adhesion, physical properties, and durability of Portland cement mortars, plasters, stucco, and concrete mixes.

USES

- Interior and exterior
- Above or below grade
- Horizontal, vertical, and overhead surfaces
- Improve adhesion and durability of cement-based mixes
- As gauging liquid for Sika waterproofing and repair products, such as Sika Thoroseal®-581

Substrates

- Concrete

Industries/Sectors

- Commercial
- Residential
- Building Restoration
- Infrastructure

CHARACTERISTICS / ADVANTAGES

- Acrylic polymer significantly improves adhesion, cohesion, tensile, compressive, and flexural strengths of cement-based materials
- Excellent chemical and UV resistance promotes long-lasting repairs
- Improves freeze/thaw stability of Portland cement-based materials for durability in cold climates
- Retains stability when exposed to water for long-term performance of repairs

PRODUCT INFORMATION

Chemical Base	Sika Thoroseal® Acryl 60 is an acrylic-polymer emulsion.
Packaging	Sika Thoroseal® Acryl 60 ▪ 1-gallon (3.8 L) bottles ▪ 5-gallon (18.9 L) pails ▪ 55-gallon (208 L) drums
Shelf Life	1-gallon 5-gallon, 55-gallon drums: 12 months when properly stored.
Storage Conditions	Transport and store in unopened containers between 40° and 100 °F (4° and

	38 °C). Protect from freezing.	
Density	8.65 lbs/gal (1.04 kg/L)	(Lab Method)
Solid content by mass	28% by Volume	(Lab Method)

TECHNICAL INFORMATION

Specific Advice

Maximum Water Dilution
1 part Sika Thoroseal® Acryl 60 to 3 parts H_2O (Lab Method)

Indicative performance of mortar mix

Test Data
The following properties are for sand/cement mortar samples:

Property	Results With Water	Results With 1-to-1 Sika Thoroseal® Acryl 60	Test Methods
Compressive Strength, 28 days	3,800 (26.2) psi (MPa)	4,500 (31) psi (MPa)	ASTM C 109
Tensile Strength, 28 days	225 (1.5) psi (MPa)	350 (2.4) psi (MPa)	ASTM C 190
Flexural Strength, 28 days	1,000 (6.9) psi (MPa)	1,800 (12.4) psi (MPa)	ASTM C 348
Freeze/Thaw Durability	11 at 98 cycles	102 at 300 cycles	Method A

Test results are averages obtained under laboratory conditions at 70 °F (21 °C) and 50% rh. Reasonable variations can be expected.

APPLICATION INFORMATION

Coverage Varies according to application. See Mixing Ratio table.

BASIS OF PRODUCT DATA

Results may differ based upon statistical variations depending upon mixing methods and equipment, temperature, application methods, test methods, actual site conditions and curing conditions.

LIMITATIONS

For Best Performance

- Do not use Sika Thoroseal® Acryl 60 when the substrate or ambient temperature is below 40 °F (4 °C) or when the temperature is expected to fall below 40 °F (4 °C) within 24 hours. High relative humidity, excessive moisture, and low temperatures will retard the curing of mixes modified withSika Thoroseal® Acryl 60.
- Caution is required when using Sika Thoroseal® Acryl 60 in a mix that already has air entrained; consult Technical Service for its proper use.
- Do not overmix or aerate mixes.
- Use with proper ventilation.
- Do not use Sika Thoroseal® Acryl 60 as a surface-applied external bonding agent or as a primer.
- Do not subject cement-based mixes modified with Sika Thoroseal® Acryl 60 to water immersion for a minimum of 24 hours at 73 °F (23 °C).
- Not recommended for exposure to soft water or immersion where contact with water-treatment chemicals is present without a protective top coat.
- Caution should be used when a solvent-based material is being used over a base system that contains Sika Thoroseal® Acryl 60.
- For professional use only; not for sale to or use by the general public.
- Make certain the most current versions of product data sheet and SDS are being used.
- Proper application is the responsibility of the user. Field visits by Sika personnel are for the purpose of making technical recommendations only and not for supervising or providing quality control on the job site.

ENVIRONMENTAL, HEALTH AND SAFETY

For further information and advice regarding transportation, handling, storage and disposal of chemical products, user should refer to the actual Safety Data Sheets containing physical, environmental, toxicological and other safety related data. User must

read the current actual Safety Data Sheets before using any products. In case of an emergency, call CHEMTREC at 1-800-424-9300, International 703-527-3887.

APPLICATION INSTRUCTIONS

SUBSTRATE PREPARATION

1. Follow surface preparation recommendations for repair material to be used.
2. The area to be patched or coated should be in a saturated surface-dry (SSD) condition, with no standing water on surface.
3. For additional surface preparation guidelines, refer to the instructions for the Sika repair mortar or coating being used.

MIXING

1. 1 part of Sika Thoroseal® Acryl 60 is typically mixed with 3 parts of potable water. Where increased physical and chemical resistance are required, increase the Sika Thoroseal® Acryl 60 water ratio to 1:2 or 1:1 (see Mixing Ratio table below).
2. Mechanically mix at low speed to avoid trapping air. Do not overmix or mix at a high speed.

Mixing Ratios

Application	Ratios
To improve the adhesion properties of pointing mortars and to reduce cracking in cement plaster	Use 1-part Sika Thoroseal® Acryl 60 to 3-parts water
For large overlays or topping	Use 2-parts Sika Thoroseal® Acryl 60 to 1-part water
For bonding cement plaster no thicker than 1/4–3/8” (6–10 mm)	Use 1-part Sika Thoroseal® Acryl 60 to 3-parts water

Note: The above ratios are for normal conditions. Where bonding is more critical, increase the Sika Thoroseal® Acryl 60
content of the mixing liquid. A TEST PATCH IS ALWAYS RECOMMENDED.

APPLICATION

Sand/Cement Mortar

1. Thoroughly mix all cement and sand first. The sand must be clean, free of clay, and dry.
2. Makeup mixing liquid from a 1:3 or 1:2 Sika Thoroseal® Acryl 60/water mix, depending on requirements.
3. Slowly add the mixing liquid to the cement/sand mixture and mix with a slow-speed mixer for 1-2 minutes to avoid trapping air.
4. After preparing, cleaning, and pre-dampening the surface, brush-apply a scrub coat (not diluted) of the Sika Thoroseal® Acryl 60-modified cement/sand. Scrub vigorously into the surface to displace any air pockets.
5. While the scrub coat is still wet or tacky, fill the repair area with the modified cement/sand mix, being careful not to over-trowel. The trowel should be cleaned frequently, kept wet, and used with minimal pressure.
6. Maximum time for placement should not exceed 20 minutes. Higher air and surface temperatures or the use of fast-setting repair materials will decrease working and placement time.

Curing

1. When rapid drying is expected due to high temperatures, rapid air movement, or wind, it is recommended that the surface be covered with wet burlap to retain moisture.
2. For normal use, allow a 24-hour curing period.
3. For heavy-wheeled traffic, allow a 4-day curing period.

CLEANING OF TOOLS

Clean all tools and equipment immediately with water. Cured material may be removed by mechanical means.

LEGAL DISCLAIMER

- **KEEP CONTAINER TIGHTLY CLOSED**
- **KEEP OUT OF REACH OF CHILDREN**
- **NOT FOR INTERNAL CONSUMPTION**
- **FOR INDUSTRIAL USE ONLY**
- **FOR PROFESSIONAL USE ONLY**

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