

Macrylex S29

semi-flexible medium viscosity sealer

DESCRIPTION

Macrylex S29 is a 100% reactive, semi-flexible medium viscosity methyl methacrylate resin developed as a sealer/topcoat over various Macrylex flooring systems utilizing one or more body coat combinations of Macrylex F32, Macrylex F98 PUMMA, Macrylex B18 and also directly over Macrylex P12 primer as a high build coating system. Macrylex S29 is a chemical resistant coating with improved UV light resistance designed for exterior use such as vehicular parking decks, pedestrian decks, roof decks, pool decks, concrete and steel stairs, ramps, interior freezer/cooler rooms and numerous other applications.

ADVANTAGES

- Rapid cure with short recoat time (60 min)
- Suitable for USDA food handling areas
- UV resistant, Non-chalking
- Good leveling and flow characteristics
- VOC Compliant, Meets USGBC LEED Requirements
- Use over wide temperature range—even below freezing
- Semi-flexible for exterior use and freezers

SUBSTRATE REQUIREMENTS

- The substrate must be dry, free of dirt, waxes, curing agents and other foreign materials
- Do not store outside in direct sunlight, storage temperature must be less than 80°F
- Maintain coating thickness at 10-20 mils to minimize yellowness and possible micro cracking
- On or below grade installation must have an efficient vapor barrier under the slab (min 10-15 mil)
- Moisture vapor transmission must be less than 3 lb per ASTM F1869 and less than 80% RH per ASTM F2170 unless Düraamen moisture mitigation system used
- The odor must be contained and/or ventilated with negative air flow as necessary
- Small enclosed spaces require proper negative air flow ventilation to ensure proper curing.
- MMA odor must be contained and/or ventilated with negative air flow as necessary

COMPOSITION

Macrylex S29 is a 100% reactive methyl methacrylate resin.

COLOR SELECTION

Macrylex S29 is supplied clear with slightly blue tint. Color packs are available for selected colors. Color pack mix ratio is 1 quart pigment per 5 gallons resin for most colors. Certain light colors may require 2 quarts per 5 gallons.

SURFACE PREPARATION

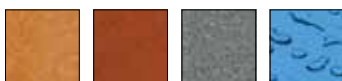
Surface Preparation is the most critical portion of any successful high performance flooring system. All substrates must be properly prepared as Outlined in Düraamen's Technical Bulletin #1. In addition, all Macrylex Flooring Systems require a minimum surface profile of 4 or 5 (CSP 4 to 5) as outlined in ICRI Guideline 310.2-1997 formerly G-03732 (available from www.ICRI.org). Work must be performed by trained or experienced contractors or maintenance personnel. Shot blast the substrate to remove laitance and expose surface cracks. Clean out cracks with oil-free compressed air.

MIXING & INSTALLATION

Macrylex S29 requires the addition of Macrylex Hardener to start the hardening process. The amount of hardener must be adjusted to the respective surface and material temperature (see table below). In order to achieve the best curing, it is necessary to apply Macrylex S29 with a short-medium nap roller. Coating thickness should be a minimum of 15 mils and maximum of 30 mils (55-100 s^q. ft./gal) depending on the profile of the profile of the base material. 100 s^q. ft./gal is average over a smooth basecoat. If the coating exceeds 30 mils the top coat may become visibly yellow due to the hardener reaction. It is best to spread material with a trowel, squeegee or notched squeegee to the desired thickness and roll in one direction, then roll in 90° patterns. This will reduce the occurrence of roller marks in the top coat.

IMPORTANT: *Back rolling should be performed immediately after spreading, and should be completed before reaching the upper limit of the pot life time, as the resin quickly transitions from fluid to sticky within a few minutes. Very light surface rolling may still be performed towards the end of the working time, but do not allow the full weight of the roller to fully imbed in the resin and contact the bond line or problems may result (resin may become "stringy" and pull away from the previous layer). Also, be aware that adding the pigment to the clear resin may slightly speed up the cure process. Use a clean roller cover with each successive batch.*

Macrylex S29 requires the addition of Macrylex Hardener to start the hardening process. The amount of hardener must be adjusted to the respective surface temperature (see table on page 2). At temperatures below 40°F, Macrylex CTA must be used in addition to the amount of hardener used at 40°F level.



Macrylex S29 Mix ratios, pot life and hardening time

Temp (F) of resin, air & surface	Hardener by volume (oz) per gallon of resin	Pot Life (min)	Hardening Time (min)
+30°F	9 oz + CTA	25	60
+40°F	7 oz	25	50
+50°F	5 oz	15	40
+60°F	4 oz	15	40
+70°F	3 oz	15	40
+80°F	2*-3 oz	15	40
+90°F	2 oz	13	30

* Do not use less than 2 oz of Macrylex Hardener by volume unless confirmed by on-site testing

IMPORTANT NOTE: *Yellowing of the resin will occur with excessive thickness or higher amounts of hardener, beginning in the range of 3–4 oz. It is advised to use lower amounts and allow extra cure time, particularly with clear resin or very light colors.*

Macrylex CTA: At temperatures below 40°F, Macrylex CTA, Cold Temperature Accelerator must be used in addition to the amount of hardener used at the 40°F or 30°F level. As a rule of thumb, add 1/2oz by volume per gallon of resin at 39°F to 32°F, up to 2.0oz by volume per gallon at 20°F; increasing the quantity gradually in a consistent linear progression as the temperature decreases.

IMPORTANT NOTE: *Macrylex CTA MUST be added to the Resin and thoroughly blended BEFORE adding Macrylex Hardener, or hazardous decomposition may occur (violent foaming). Macrylex CTA will cause yellowing of the resin. Therefore, it is advised to use pigmented Macrylex resins to reduce the appearance of yellowing. Coating work should be continued only after the complete hardening of the previous layer. Tap ransom areas with a hard edge tool to confirm resin is hard and not surface dry*

PHYSICAL PROPERTIES

Percent reactive	100%
VOC	<50g/L
Working Life, 50-70°F	13–25 minutes will vary w/ temp & amount of hardener
Recoat time	30-60 minutes
Viscosity @ 75°F	380-390 cps
Weight per gallon	8.3 lbs

WARRANTY

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CLEAN UP

Clean tools and equipment with Macrylex 01 Monomer, lacquer thinner or MEK. Consult MSDS for safety and health precautions.

MAINTENANCE

Macrylex S29 considered to be a low maintenance flooring solution. Certain textures and environment however require specific cleaning with bristled brushes. Due to the thermoplastic character of MMA resins, black marks can occur from forklifts and tires skidding.

AVAILABILITY

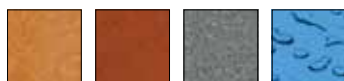
Duraamen Products are available throughout United States and also Worldwide. Please contact us info@duraamen.com or visit www.duraamen.com for latest information.

STORAGE

Store in a cold and dry place, below 80°F, out of direct sunlight. Do not store near open flame or food. Shelf life is 6 months in the original unopened containers. After extended storage additives and fillers may separate. It should be inspected for any visible signs of settlement, polymerization, or paraffin coagulation (clumps, strands). Thoroughly mix pails or drums (use a drum mixer, do not rely on rolling the drum on the floor) and pour into new containers to inspect resin before use.

HELPFUL HINTS

Adequate cross ventilation should be provided. Good ventilation during the processing ensures a good cross linking and hardening. Read, understand and follow SDS instructions prior to use. Use only as directed. If the substrate and/or material temperature is ABOVE 90°F, DO NOT APPLY, unless prepared for very short working time, possible roller marks or other application problems.



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