Creative Concrete Concepts

# ElastoCrete 212

## Water Based PU Sealer

TECHNICAL DATA SHEET

**DESCRIPTION** • *ElastoCrete 212* is a two-component, water-borne, low VOC, low viscosity, aliphatic polyurethane coating for sealing, waterproofing and protecting concrete and masonry surfaces. *ElastoCrete 212*'s unique low viscosity and high dispersion allow it to be more easily absorbed into the surface, thereby providing higher protection and forming a thin yet tough film that protects the concrete against staining while preserving its natural appearance.

*ElastoCrete 212*'s 2K formulation forms a cross-linked network of molecules that provide superb chemical resistance, making it ideal as a top protective coat on masonry surfaces. *ElastoCrete 212* is available in glossy and matte grades.

**USES** • *ElastoCrete 212* is used where a clear and chemically resistant protective coating that is more durable than conventional acrylics is sought for protecting terrazzo, concrete, plaster, decorative overlays, natural stone, and other masonry surface. *ElastoCrete 212* is ideal for decorative applications such as colored concrete thanks to its moderate color enhancement and high chemical resistance. *ElastoCrete 212* may also be used as the top protective coating in a multi-layered industrial resin coating system such as *EpoCrete 5000S* epoxy screed, or decorative resinous flooring such as *EpoCrete 1000* colored quartz carpet.

*ElastoCrete 212* is UV resistant and may therefore be used internally or externally. Its high chemical resistance and abrasion resistance make it ideal for hospitals, laboratories, retail showrooms, offices, processing plants, workshops and wet areas.

**COLORS** • *ElastoCrete 212* is available as a milky white solution that dries to a clear coating.

**ADVANTAGES** •

- ✓ Aesthetically pleasing natural appearance.
- ✓ Environmentally friendly water-based coating.
- ✓ Resistant to fungus and bacteria growth.
- ✓ Easy to apply with roller or microfiber.
- ✓ UV resistant.
- ✓ Excellent abrasion and chemical resistance.
- ✓ Resistant to staining including tire marks and hot tire pick up.
- ✓ May be applied directly to concrete, no primer is necessary.
- ✓ Weather and corrosion resistant.
- ✓ Available in both high gloss and matte grades.

**LIMITATIONS** • Do not apply to new concrete surfaces before they have been allowed to fully set and adequately cure. *ElastoCrete 212* is only a fine coating; it should not be used to fill cracks or holes in the surface. Do not apply when ambient temperature is below +10°C or above 40°C. Do not apply on wet or damp surfaces. Do not apply if rain is expected in the proceeding 8 hours. Dispose of unused material beyond pot life.

**PHYSICAL PROPERTIES** •

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| Solid content | 50% |
| Pot Life @ 23°C<br>Glossy grade<br>Matte grade | <br>2:30 hr.<br>45 min. |
| Dry Time @ 23°C, 50% RH<br>Glossy grade<br>Matte grade | <br>7.5 hrs.<br>1.5 hrs. |
| Physical Appearance | Milky White |
| DFT (one coat) | 20-30 micron |
| VOC (USUPA 24) | < 10 g/L |
| Tensile Strength (ASTM D 412) | 14.2 MPa |
| Elongation (ASTM D 412) | 83.9% |
| Water Penetration (BS EN 12390 B) | Nil |
| Pull Off Strength (ASTM D 4541) | 1.02 MPa |
| Tear Strength (ASTM D 624) | 21.14 N/mm |
| Stain Resistance (ASTM D 1308)<br>Ethyl Alcohol (50%)<br>Vinegar (3%)<br>Alkali Solution (pH 11.5)<br>Acid Solution (pH 2.5)<br>Soap & Detergent Solution<br>Volatile Fluid (Acetone/Petrol)<br>Tea, coffee, vegetable oil & fat<br>Grease/Lubricating Oil | <br>No Effect<br>No Effect<br>No Effect<br>No Effect<br>No Effect<br>No Effect<br>No Effect<br>No Effect |

**COVERAGE** • Application rate will vary according to surface conditions, material absorbency, application technique and job conditions. Coverage rate averages about 13 sqm/L but may vary from 9 to 19 sqm/L depending on surface absorbency.

**SURFACE PREPARATION** • All surfaces should be sound, clean, dry and free from dust, oil, grease, laitance, curing agents, loose particles, wax, tar, mildew, mold, paint, sealers, coatings, and other contaminants. Wet substrates should be sponge dried to remove all free surface water then air dried. Treat oil or grease contamination with degreaser followed by water or steam cleaning. Floor area and the wall up to a height of 200 mm shall be thoroughly cleaned dry and free of dust, loose cement mortar, grease, oil, and other contaminants.

Concrete surfaces should be allowed to fully set and adequately cured before application of the coating. It is recommended to wash concrete surfaces with

clean water prior to application of *ElastoCrete 212* to reduce the surface alkalinity of the concrete. Excessive laitance should also be removed by mechanical methods. Dust and other debris should be removed by vacuum cleaning. Fine cracks, pin holes, and damaged areas may be filled with *MortCrete 3000* or other epoxy-based mortar, but color differences compared to surrounding concrete will be visible. If cement-based materials are used for repair or filling, they must be allowed to fully cure before application of *ElastoCrete 212*. Remove all unsound concrete. Patches shall be flush with the surrounding surface and shall match the texture of existing surfaces.

Epoxy screeds high spots or trowel marks should be rubbed down. Remove dust and debris by vacuum cleaning.

**MIXING** • Lightly stir the contents of the A component (pigmented part) for 2-3 minutes using a jiffy mixing blade attached to a low speed drill (200-300 RPM). Insure that the pigment is thoroughly and evenly distributed, eliminating any settlement that might have occurred in the container. Pour the contents of the B components (clear part) into the A component container, scraping the sides of the B component container to ensure that the entire contents of the container are used. Mix thoroughly to a streak-free color uniformity using a jiffy mixing blade attached to a low speed mixer.

**APPLICATION** • After mixing, *ElastoCrete 212* should be immediately applied to the dry surface while ensuring a continuous coating of uniform thickness is obtained. A short nap roller or sponge roller are recommended; alternatively, the material may also be applied using a microfiber cloth. For faster rates of application use an airless spray. A brush may be used for touch-up and edging work or for areas unsuitable for spray or roller application.

*ElastoCrete 212* may be applied directly on concrete and masonry surfaces or other resin-based flooring systems as a sealer coat. Do not apply subsequent coats until the first *ElastoCrete 212* coat has fully dried. Two coats are recommended for concrete flooring applications to achieve full protection.

Dry times will vary depending on ambient conditions. Water borne systems are sensitive to temperature and humidity changes: higher temperatures will shorten drying time, while higher ambient humidity will prolong drying time.

**MAINTENANCE** • Treated surfaces should be inspected periodically for thin or traffic-worn areas. For new applications, it is recommended to check the floor after one year, then at six months intervals thereafter. A dull or discolored surface usually indicates the need for reapplication.

If the old coat has not been damaged by staining, a new coat may be applied after lightly sanding the old coating; be careful not to use rough sand paper that may damage the decorative flooring under the coating. If the old sealer coat has been heavily stained, it needs to be completely removed before applying a new coat. Use paint remover from National Paint or equivalent. Clean the surface with a towel lightly damped with solvent, allow to dry then apply the new coat. Though the coating will be dry to the touch in a few hours, it is recommended to allow it to cure for at least 12 hours before allowing foot traffic in.

**CLEANING** • Tools and equipment must be immediately cleaned with clean water.

**STORAGE & SHELF LIFE** • Product should be stored at 25°C in dry conditions away from direct sun light. Shelf life is approximately 12 months from date of purchase in original unopened container at specified storage temperature.

**SAFETY PRECAUTIONS** • DANGER! ACIDIC CONTENT MAY CAUSE SEVERE EYE IRRITATION AND MAY CAUSE BLINDMESS. KEEP AWAY FROM CHILDRES. CORROSIVE. Protective clothes such as coveralls, goggles, respiratory masks, and chemically-resistant aprons and boots should be worn. Application of materials should be under good ventilation. DO NOT TAKE INTERNALLY, MAY BE FATAL IF SWALLOWED. MAY CAUSE CANCER. First aid: Eyes – flush with water and seek medical attention immediately. Do not use any solvents. Ingestions – give several glasses of water or milk and seek medical attention immediately. Contact with skin – wash affected area immediately. Inhalation – move to fresh air.

**PACKAGING** • 5 and 10 liters kits.

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