

# Dual-Tech

## *Technical Data Sheet*

### DESCRIPTION

Dual-Tech is a chemically engineered blend of water-based silicate and hardener/densifier polymers. Dual-Tech has a two-fold process in one product - it chemically reacts within the top wear layer of concrete to densify and harden the surface and it produces a surface membrane that seals the surface against spills and stains.

### PRIMARY APPLICATIONS

Warehousing, Distribution Centers, Malls, Manufacturing Plants, Parkades.

### FEATURES/BENEFITS

Seals and strengthens concrete  
 Reduces tire marks  
 Dustproofs the surface  
 Hardens the concrete  
 Repels liquids such as water, oil  
 and many chemicals  
 Excellent freeze/thaw resistance

Environmentally Safe and non-hazardous  
 Easy Penetration for Ease of Application  
 No rinsing required  
 VOC Content - 0.00 g/L  
 Produces surface gloss with abrasion  
 Can be Polished

### TECHNICAL INFORMATION

VOC Content - 0 g/L  
 Flashpoint - none  
 Viscosity - water thin  
 pH - 11  
 Color - auburn  
 Skid Resistance - good  
 Drying Time at 70°F (21°C) - 1 hr  
 Light Foot Traffic - 1 to 2 hours  
 Wheel Traffic - 24 hours  
 Physical State: Liquid  
 Odor - None

Densifier / Water Repellent



**COVERAGE**

Hard Troweled dense concrete  
300 ft<sup>2</sup>/gal (7.4 m<sup>2</sup>/litre)  
Broom Finish - 250 ft<sup>2</sup>/gal (6.1  
m<sup>2</sup>/litre)

**CAUTION**

**Do Not Freeze.**

**WARRANTY**

We warrant our products to be of good quality and free of defects in material and workmanship. See full warranty upon request.

**POLISHING CONCRETE COVERAGE**

Typical rate on ground concrete is  
400-600 ft<sup>2</sup>/gal (9.8-14.7 m<sup>2</sup>/litre)  
Typical rate for hard trowelled  
concrete is 300 ft<sup>2</sup>/gal (7.4 m<sup>2</sup>/litre)

**PACKAGING**

55 gallon drums (205 Litre)  
5 gallon pails (18.9 Litre)

**SHELF LIFE**

2 Years in original,  
unopened container.

**SURFACE PREPARATION**

Not recommended for colored concrete, unless you are grinding and polishing. Protect surrounding areas from overspray, spills, tracking and equipment contact. In case of accidental contact, rinse thoroughly with water immediately.

**Old Concrete/Existing Concrete**

Ensure all surfaces are structurally sound and free of all contaminants such as oil, contaminants and any film forming curing compounds and sealers. Fill and repair all holes, cracks and deteriorated areas before application.

All Concrete should be thoroughly cleaned and rinsed with clean water. After washing allow the concrete to dry completely before application.

**New Concrete**

Ensure surfaces are clean and free of all contaminants, and any film forming curing compounds or sealers.

Ensure the concrete has been cured for a minimum of 28 days before application.

During cooler temperatures or higher relative humidity conditions, dry times will be increased.



**INITIAL GRINDING - for salt & pepper look**

Grinding the concrete to an initial surface profile (200-400 grit) is an option if you would like the salt and pepper look of the concrete. Grinding must occur prior to the application of Dual-Tech. Concrete substrates that are contaminated with oil, grease or other substances after grinding to the initial surface profile should be thoroughly cleaned and dried before continuing.

Apply first coat at approximately 400-600 ft<sup>2</sup>/ gal (9.8-14.7 m<sup>2</sup>/litre) using a low pressure sprayer or by spreading evenly with a micro fiber pad. A micro fiber pad gives better even distribution of the product and will minimize puddling. Keep the surface wet for 30 minutes by applying more product where the surface has dried or by redistributing the product with a micro-fiber pad.

Do not allow material to form puddles on the surface as this may cause white residue to form and stain.

When dry, proceed with additional required polishing steps. After the 800 grit level and before the final polishing steps, uniformly apply the 2nd coat at 600-800 ft<sup>2</sup>/ gal (14.7 - 19.6 m<sup>2</sup>/litre) spread with micro-fiber pad, keep the surface wet for 30 minutes by re-dispersing product with micro-fiber pad. Do not puddle.

Allow to dry and remove any residue with polishing diamonds. No water-flush is required.

**POLISHING CONCRETE / HARDEN AND DUSTPROOF**

If you want to polish concrete without the salt and pepper look, use the following procedure.

Apply Dual-Tech to the surface of concrete at a rate of 300-400 ft<sup>2</sup>/gal (7.4-9.8 m<sup>2</sup>/litre) using a sprayer or micro-fiber pad. Make sure concrete stays wet for 30 minutes by re-applying more Dual-Tech or by re-distributing the existing product using a micro-fiber pad. Do not puddle the product. No rinsing of Dual-Tech is needed. Let Dual-Tech dry before polishing the concrete.

If you are looking to harden and dust-proof the concrete, no other steps are required.



**POLISHING FINAL STEPS****POLISHING**

After treatment, continue honing, burnishing, and polishing the treated concrete to the intended final finish profile. Use anywhere from 400-1500 grit using progressively finer polishing disks.

If wet polishing, remove the slurry residue between diamond changes using a wet vacuum or squeegee and rinse thoroughly removing excess water and slurry. After the final finish profile is achieved, allow the polished concrete to dry completely prior to any further surface treatment.

**Testing**

ASTM C666 - Resistance to Freeze/Thaw - Excellent

**Stain Resistance - After 12 Hours**

Coffee - Fair  
 Beet Juice - Good  
 Ketchup - Fair  
 Kerosene - Good  
 Used Motor Oil - Good  
 Red Wine - 10 minutes - Good

**BURNISHING**

Dual-Tech can be burnished to a high sheen on steel trowel concrete floors. A high-speed burnisher (2000-2200 rpm) with appropriate maintenance pad is needed.

**MAINTENANCE**

Dual-Tech polished floors require very little maintenance other than scheduled scrubbing with water and a neutral or alkaline cleaner. All spills should be cleaned immediately.

No waxes or subsequent surface treatments are necessary.

Periodic applications of Repel should be applied as required.

Refer to maintenance sheet for full recommendations.

Densifier / Water Repellent



**APPLICATION PROCEDURES****Old Concrete/Existing Concrete**

Not recommended for colored concrete, unless grinding and polishing.

Product is ready to use, no dilution is needed. Apply at approximately 250 ft<sup>2</sup>/gallon (6.1 m<sup>2</sup>/litre) Moisten the surface with product by sprayer or microfiber applicator. When spraying a spray nozzle that produces a flow of 1/4 gallon per minute under 40 psi is recommended. Keep surface moist with product for 20 minutes do not let material stand and puddle. If excess material is still on the surface after 20 minutes, use a microfiber applicator to even out excess material.

**New Concrete**

Not recommended for colored concrete unless grinding and polishing.

Product is ready to use, no dilution is needed. Apply at approximately 300 ft<sup>2</sup>/gal (7.4 m<sup>2</sup>/litre) using a low pressure sprayer or by spreading evenly using a microfiber pad. Do not allow material to form puddles on the surface as this may cause white residue to form and stain. If excess material is still on the surface after 20 minutes, use a microfiber applicator to even out excess material.

**FINAL STEPS****MAINTENANCE**

Dual-Tech floors require very little maintenance other than scheduled scrubbing with water and a neutral or alkaline cleaner. All spills should be cleaned immediately. No waxes or subsequent surface treatments are necessary.

**CLEAN-UP**

Clean up equipment and tools with a mild soap and water.

**CAUTIONS**

Immediately wash off over-spray from glass, aluminum, or highly polished surfaces with water to avoid etching. Product is slippery when wet.

Do not apply product if the temperature of the concrete is less than 40°F (4°C) or above 135°F (57°C)

**Keep the product from freezing.** Do not allow Dual-Tech to form puddles, broom puddles out before they dry or staining may occur.

Wear skin and eye protection. Wash hands thoroughly after handling.

**Do Not apply to colored concrete.**

See SDS for complete precautions.

