



# TerraChip®

## Technical Data Sheet

### System Description

**TerraChip** is a seamless flooring system that combines non-porous protection with architectural beauty. The end user has the ability to select standard color blends or to create a pattern and color scheme unique to each environment.

The **TerraChip** system features 100% solids materials and incorporates the latest light stable technology. **TC BaseCoat** is the resin matrix which holds the colored chips. It provides excellent adhesion and rapid turnaround. Alternatively, **TerraFlex**, a urethane-modified epoxy, may be used for crack bridging or for bonding to wood, ceramic tile, or vinyl tile. The vinyl-acrylic **TerraChip Aggregate** provide the pattern while creating a laminate structure in the basecoat. **Sealer LS** is the light stable sealer. It is formulated with hydrogenated epoxy to provide maximum UV stability for an epoxy coating. For best results, **TerraThane** can be used as a finish coat. TerraThane is an automotive-grade aliphatic polyurea with unsurpassed color and gloss retention. Both sealers incorporate technology to prevent discoloration of the basecoat and chips.

### Features and Benefits

**Aesthetic:** Provides an attractive finish with endless design capabilities. Exhibits superior gloss and color stability

**Sanitary:** Seamless, non-porous finish results in easy cleanup

**100% Solids:** Low odor makes it ideal for use in Pharmaceutical and Food & Beverage facilities

**Long Lasting:** Provides excellent resistance to mechanical wear and continual cleanup, Exhibits superior color and gloss stability

**Chemical Resistant:** Provides resistance to a variety of chemicals.

### Applications

Pharmaceutical Production and Storage Areas

Laboratories

Food and Beverage Processing Areas

Cafeterias and Kitchens

Dairies

Hospitals and Health Care Facilities

Lobbies, Aisles, and Offices

Showrooms

Laundries

Correctional Facilities

Restrooms, Showers and Locker Rooms

Animal Holding Areas

### Application Overview

#### Environment

Apply when air, surface, and material temperatures are between 60°F and 90°F. The surface temperature must be at least 5° above the dew point to prevent moisture condensation.

#### Substrate

The substrate must be structurally sound and free of oil, grease, and other contaminants. Concrete must be prepared by shotblasting, scarifying or acid etching to create a surface profile equivalent to 40-60 grit sandpaper. Tile must be prepared by grinding with a diamond grinder to create a similar profile.

#### Application

The basecoat is applied to the substrate at a rate of 150 sf/gallon. The chip aggregate is broadcast into the wet basecoat to rejection (about 16 lbs./100 square feet). After drying the excess chips are scraped and vacuumed. Sealer LS is applied at 100-125 sf/gallon to seal the chips. A finish coat of TerraThane is applied at 400 sf/gallon.

**Please refer to Application Instructions for complete application details. Information here is summarized and is to be used only as a guideline.**

### Warranty

American Industrial warrants its products to be free of defects in material and workmanship. This warranty specifically excludes the following: problems due to irregularities in the substrate, failures caused by moisture migration through the substrate, changes in color and gloss. Claims must be made within 12 months of installation of material.

The technical data and suggestions presented here are believed to be reliable and accurate at the time of publication. American Industrial makes no warranty, expressed or implied, based on this literature. Published technical data and recommendations are subject to change without notice.

## Product Limitations

### Rising Temperatures

Concrete will outgas during periods of rising temperatures. To prevent bubbling, always apply when the application and cure temperatures will be constant or decreasing.

### Cracks

Moving cracks in the substrate are likely to transfer to the coating unless treated properly.

### Moisture

All concrete surfaces should be tested for moisture before applying a seamless coating. Water vapor transmission upwards through on-ground concrete slabs may result in loosening of epoxy floors or improper curing of epoxy materials. If moisture emissions exceed 3 lbs./1000 sq. ft. contact the manufacturer before application.

## Safety

This product is intended to be installed by experienced professionals. Read the MSDS and product label for complete safety information before using. Avoid contact with all materials to prevent irritation. Use only with adequate ventilation.

Safety glasses, gloves, and protective clothing should be worn at all times while handling this product. Avoid exposure to eyes and skin as epoxy resins and hardeners can cause mild to severe skin irritation.

## Maintenance

The amount of cleaning required will be dependent on the service conditions and appearance desired. Do not wash the floor within 5 days of installation. Exposure to water before the floor is completely cured may dull the finish. Damp mop as needed with a clean mophead and clean, warm water with a mild detergent or degreaser. Rinse thoroughly to avoid leaving residue. When using a new cleaner for the first time, test clean an inconspicuous area to ensure compatibility with the floor.

## Performance Properties

<b>Adhesion</b> (ASTM D-4541)	>250 psi (concrete fails)
<b>Hardness</b> (ASTM D-2240)	84 Shore D
<b>Abrasion Resistance</b> (ASTM D-4060) cs-17 wheels, etc	55 mgs.
<b>Coefficient of Friction</b> (ASTM D-2047, 10 second slipmaster test on dry surface with leather inserts)	0.60
<b>Porosity</b> (NACE TM-01-74)	0.0
<b>Flammability</b> (ASTM D-635)	Self-extinguishing
<b>Maximum Service Temperature</b>	180°F

## Chemical Resistance

Acetone 0-40%	II	Glycerine	I	Sugar	I
Alcohol, Isopropyl	I	Glucose	I	Sulfuric Acid (0-30%)	I
Beer	I	Hydrochloric Acid (37%)	II	Sulfuric Acid (50%)	III
Bleach (5%)	I	Hydraulic Fluid	I	Sulfuric Acid (98%)	NR
Blood	I	Hydrogen Peroxide (10%)	II	Tetrachloroethylene	III
Boric Acid	I	Jet Fuel	I	Toluene	II
Carbon Tetrachloride	II	Lactic Acid (30%)	II	1-1-1 Trichloroethane	III
Calcium Hydroxide (50%)	I	Mineral Oils	I	Trisodium Phosphate	I
Chromic Acid (10%)	I	MEK	III	Urine	I
Citric Acid	I	Perchloroethylene	I	Vinegar	I
Deionized Water	I	Phosphoric Acid (40%)	II	Water	I
Detergents	I	Phosphoric Acid (80%)	NR	Xylene	II
Diesel Fuel	I	Propylene Glycol	III		
Ethylene Glycol	I	Salt Water	I		
Fats & Fatty Acid	I	Sodium Benzoate	I	I	Prolonged contact
Formaldehyde (0-30%)	II	Sodium Carbonate	I	II	Splash and spill exposure
Formic Acid	NR	Sodium Hydroxide (50%)	I	III	Caution
Gasoline	I	Sodium Hypochlorite (15%)	II	NR	Not Recommended

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