

The World of Essential...



World Class Coatings and Chemistry

www.essind.com



Whether it's world class coatings
or custom-blended chemistries...

Innovation is ESSENTIAL.





Monomer shipment
direct to our Nevada
facility



New investments in our
Polyurethane Reactors and
Dispersion Drop Kettles



Acrylic Polymer Reactors



**Innovation
is Essential.**

The World of Essential...
is Powered by



Essential™
Polymers



The Spark of Innovation

Polymer Technologies

Essential Polymers offers a wide range of high performance polymers, polyurethanes and raw material technologies:

- **Green Technologies**

- n-MP-Free Urethane/Acrylic IPNs

- **Self Cross-Linking Technology**

- Urethane/Acrylic Self Cross-Linking Proprietary Technology
- Self Cross-Linking Acrylic Technology

- **Polyurethane Dispersions**

- **Specialty Formulated Products**

- Acrylic Restoration Coating for Gel Coats
- Metallic Ink Vehicle
- Blister Packaging Adhesive
- Water-Based Wood Varnish
- Concentrated Resilient Floor Coating



COMPLETE TERRAZZO SOLUTION



Ultra Durable IPN Technology

.....

No Burnishing or Stripping

.....

Restores and Protects Natural Beauty

Features



- Permanent
- Ultra durable
- Color restoration
- UV stable
- Resistant to:
 - Chemicals
 - Cowpathing
 - BHM
 - Scratching
 - Scuffing
 - Dirt Penetration
- No burnishing
- No densifiers or restorers
- Applies like a floor finish
- Never strip again
- IPN technology



www.trxcoating.com

Current test floors have been down for two years



IPN

Interpenetrating Polymer Network

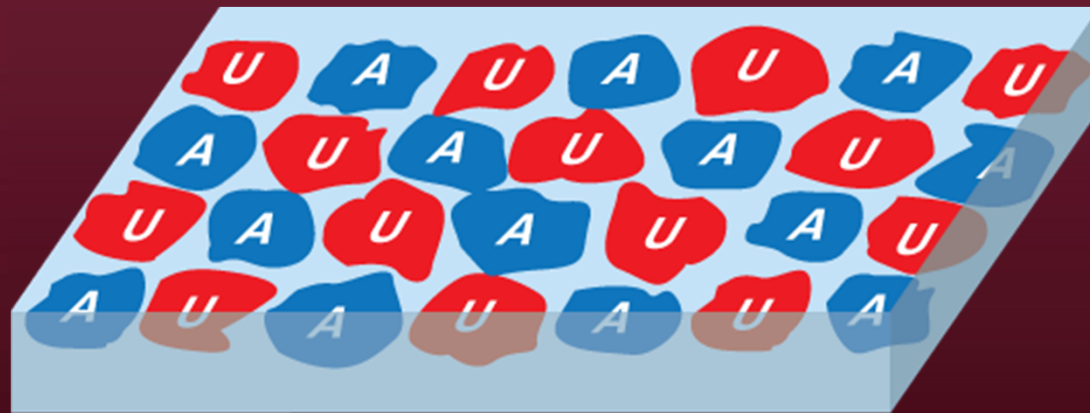
T-Rx is a permanent Terrazzo coating that eliminates strip outs, polishing and frequent recoating. In other words, it eliminates “cow pathing” caused by high traffic for up to a year. To understand how, you have to know a little about IPNs or Interpenetrating Polymer Networks, which are the backbone of the T-Rx coating.





Traditional Technology

Traditional coatings like floor finish or densifier-based maintenance programs create coatings of urethane and acrylic in which the urethane and acrylic polymers are linked together through traditional covalent bonds. If you were to look at them under a microscope the urethane and acrylic polymers would look like distinct little tangles held together by traditional Hydrogen bonds in a matrix that looks something like this:



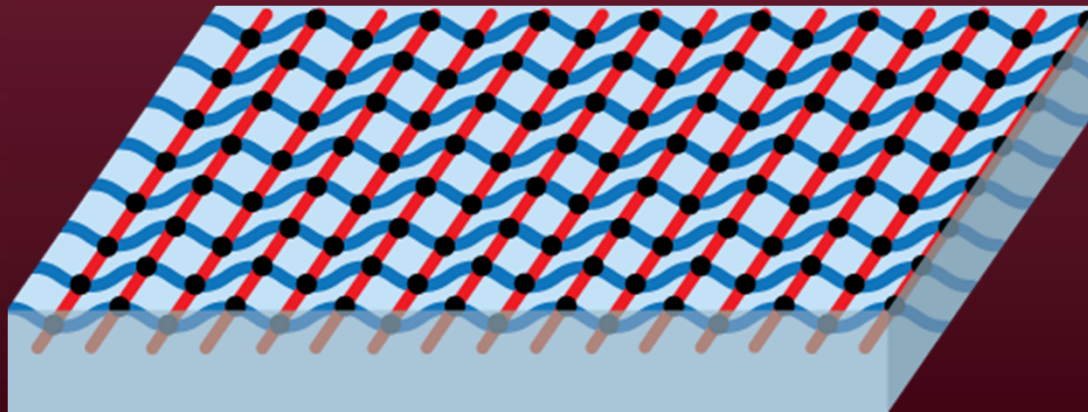
Conventional Coating



IPN Technology

T-Rx uses IPN technology, or Interpenetrating Polymer Networks, a completely different architecture. In IPNs, long strands of urethane and acrylic polymers are interwoven and then welded together (see below). The dense “weave-weld” architecture gives the T-Rx polymer tremendous strength and chemical resistance.

Because the polymers in T-Rx are woven and welded together, they are much harder to scuff off the floor, so there’s no cowpathing; the coating remains glossy and uniform in its appearance for up to a year or more, depending on traffic. The T-Rx IPN architecture has another major advantage, it’s extremely resistant to chemical and water staining. Chemicals simply can’t get through the dense weave-weld matrix.



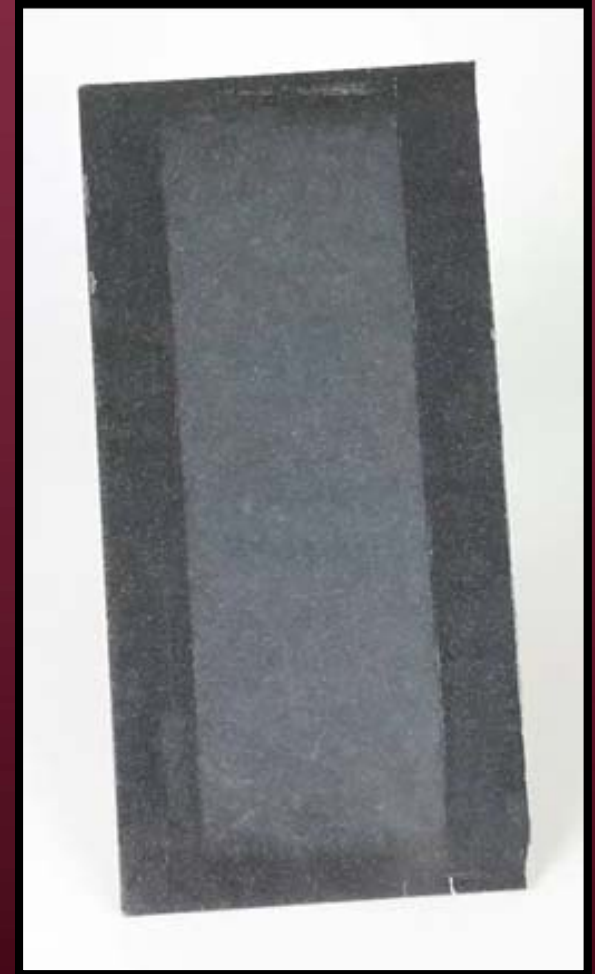
T-Rx Coating



T-Rx Coating



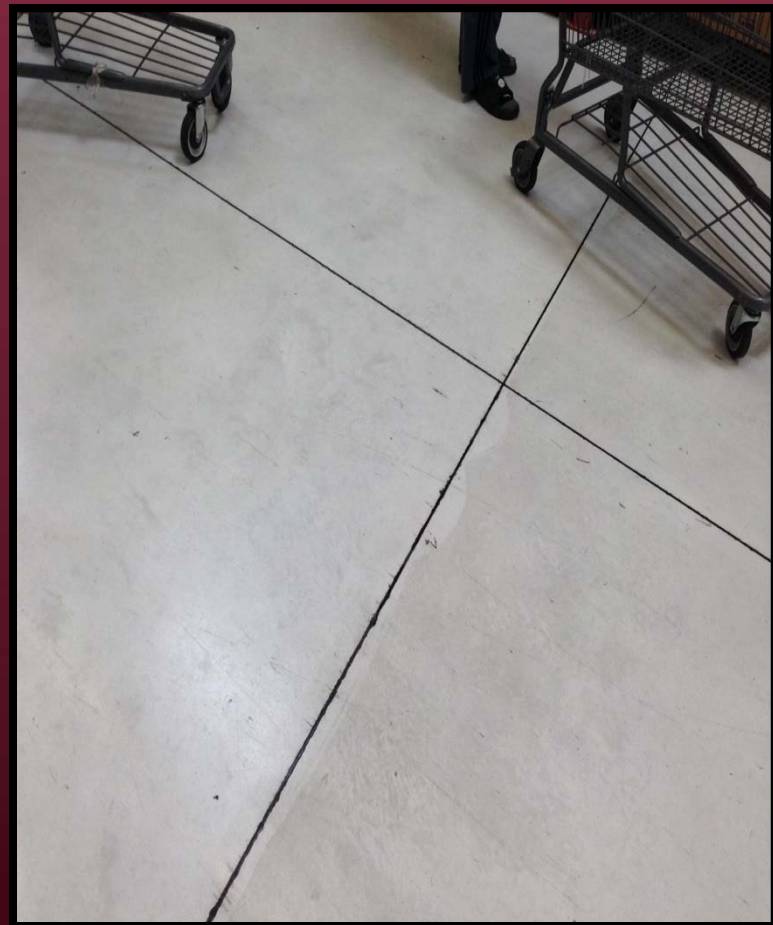
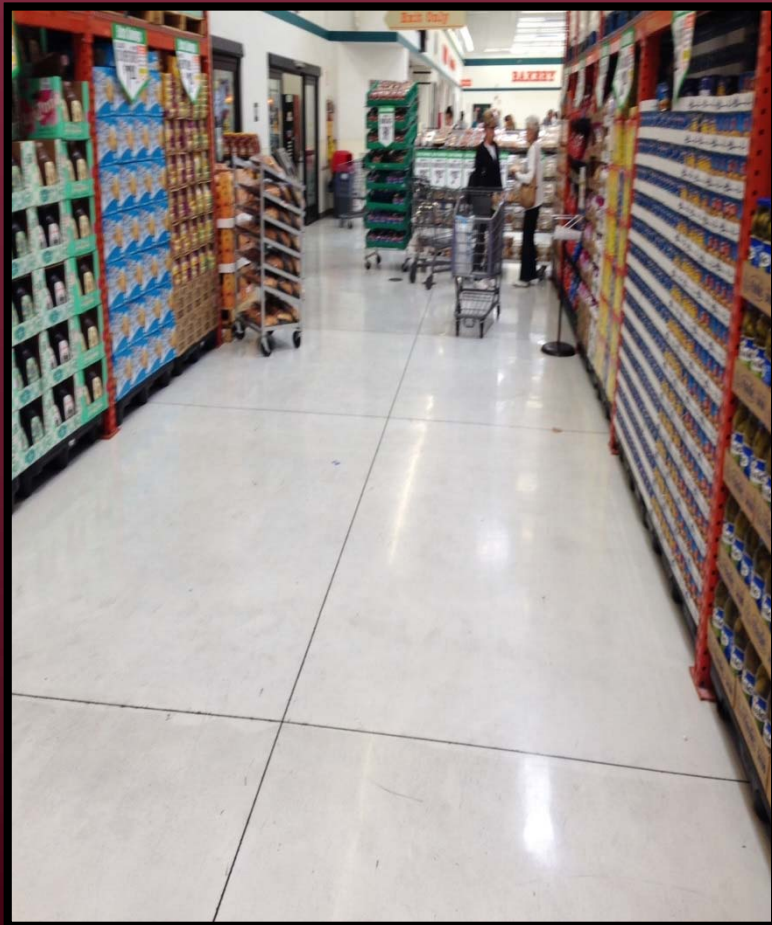
Conventional Coating



Traditional finishes cow-path because the little tangles of polymer are scuffed off the floor by your shoes when you walk on them. Eventually, this damages the finish to the point you need to polish or burnish it, recoat it, or eventually, strip it off.

The tiles shown here were run in a snell capsule for the same period of time. The T-Rx piece on the left has no cowpath or marking. The conventional finish on the right shows significant wear.

Resists Dirt and Stain Penetration



London Witte Indianapolis, IN



"Your product has proven the test of traffic and wear, with very little maintenance to it. Damp mopping with a neutral cleaner has kept it shining like new."

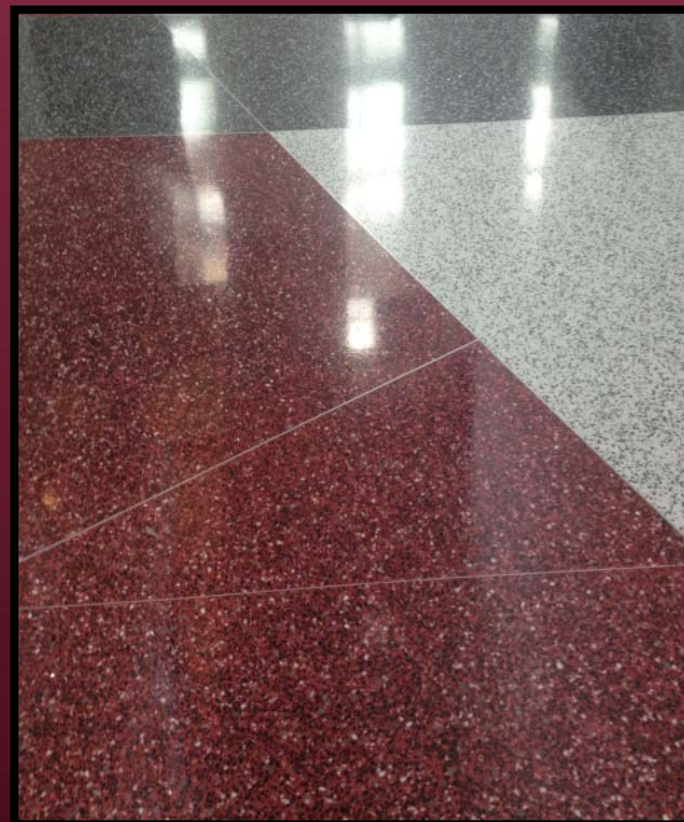
*Rob Mercer,
Building
Superintendent*



19 months post application

Yum Center

Home of the Louisville Cardinals



Blessed
Sacrament Church
Madison, WI



“Essential laid some T-Rx™ terrazzo coating at our school over the summer. The terrazzo has never looked so good and we have received a number of compliments on it. Additionally, we noticed that the floor is significantly easier to keep clean.”

*Andy Robertson,
Building and Ground
Supervisor*

Catholic Memorial
High School
Waukesha, WI





Catholic Memorial
High School
Waukesha, WI



Bakers Life
Field House
Indianapolis, IN



Boone Valley Hospital Columbus, MO



"Our hospital floors look fantastic. Excellent sealer on our Terrazzo floors. Finish has been down almost 1 year now, and I have to say very low maintenance in keeping the floor looking good."

*Mark Perry,
Environmental Director*



Indianapolis Airport



13 months post-application



Muir Junior High
Huron Valley Schools
Waterford, MI



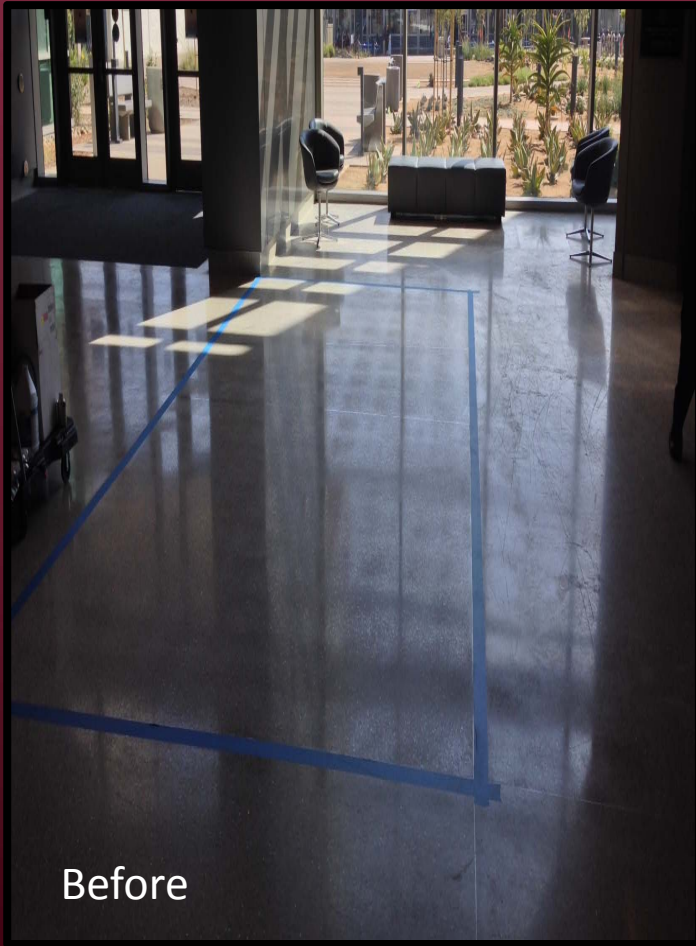
Ft. Mill School System Fort Mill, SC



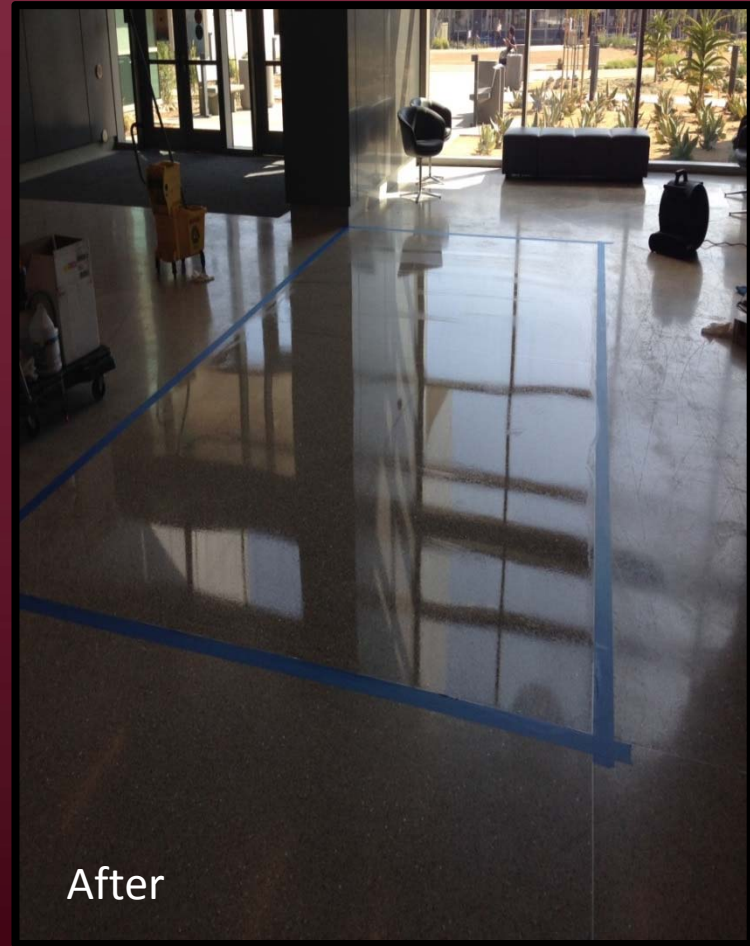
"T-Rx has performed exceptionally well. We haven't found anything that would stand up to the beating that our halls and cafeteria take, until now. It doesn't scratch, it doesn't scuff, it doesn't need to be burnished and it looks great. It has saved us time and money. What more could you ask for?"

*Cory Crane,
ABM/SM, Project Manager*

Mesa College California



Before



After

Baylor, Scott & White
Medical Center
Waco, TX



"The floor looks very good, with great depth and shine. The dry time was 40 minutes and it was easy to apply. It levels very nicely."

*Clayton Hooten,
Contractor*





Using T-Rx means you can sell your expensive diamond polishing pads and burnishing equipment, leave your stripper in the closet and spend tons of time NOT maintaining your Terrazzo floor. Next year, when it's time to refresh your terrazzo, just scrub your T-Rx floor with Blue Concentrate (2085FC) or Blue Concentrate SC (4085FC) and a red pad. Recoat using a flat mop. It's as easy to apply as traditional floor finish.

Application Procedures



Equipment and Materials:

- Properly mixed T-Rx material (see Mixing Directions)
- Application vessel: Kai-Motion bucket or watering can
- Flat Mop equipped with a short-nap, microfiber mop head/pad
- Fresh water source

Directions:

1. Read all directions and cautions carefully before proceeding.
2. Eliminate air flow from work area by closing windows and doors and turning off fans or HVAC system.
3. Pour freshly mixed T-Rx into application vessel.
4. Apply T-Rx in a thin bead (4" - 6") working in sections of 300 sq. ft.
5. Using the flat mop applicator, coat the floor as you would with a conventional floor finish.
6. Floor must dry for at least 1 hour prior to recoating. Conduct the paper test to insure floor is dry, and polish the floor with a white polishing pad to accelerate the drying process.
7. Rinse mop pad with fresh water thoroughly between coats.
8. Wait 90 minutes after applying the last coat. Conduct the paper test to insure floor is dry, and polish the floor with a white polishing pad to accelerate the drying process.
9. Polish the floor using a 6000 grit diamond pad on a high speed machine (1500 RPM or higher).
10. Polish the floor again with a white polishing pad to even out appearance.





TM

COMPLETE TERRAZZO SOLUTION

Links for more information:

www.trxcoating.com

[Video: T-Rx IPN Technology Explained](#)

[Video: T-Rx Mixing and Application](#)

[Video: T-Rx Unaffected By Hand Sanitizer](#)



 **ESSENTIAL[®]**
INDUSTRIES