TechLevel-HPT High Performance Topping

1 Product Name
TechLevel-HPT High Performance Topping

2 Manufacturer
Custom Building Products
Technical Services
10400 Pioneer Boulevard, Unit 3
Santa Fe Springs, CA 90670
Customer Support: 800-272-8786
Technical Services: 800-282-8786
Fax: 800-200-7765
Email: contactus@cbpmail.net
custombuildingproducts.com

3 Product Description
TechLevel-HPT is a High Performance, Self-Leveling Topping designed for fast-track resurfacing and smoothing of interior substrates such as concrete, porous tile and certain non-porous surfaces when properly prepared. TechLevel-HPT can be sealed to create a concrete wear surface for commercial, light industrial and residential applications.

TechLevel-HPT can be installed from 1/4” to 1” in one application. TechLevel-HPT is pourable and seeks its own level to produce a smooth, flat, durable surface that hardens quickly and dries fast.

Key Features
- Versatile product, performs as high performance SLU or interior wear surface topping
- Compressive strength > 6,000 psi
- Cures fast; walkable in as little as 2 hours and accepts coatings in 24 hours
- Crack resistant, exceptionally smooth surface

Uses
Suitable as an Underlayment for:
- Carpet
- Wood and parquet flooring
- Luxury Vinyl Tile/Planks (LVT/LVP)
- Vinyl composition flooring (VCT)
- Sheet vinyl and rubber flooring
- Laminated flooring
- Ceramic, mosaic, quarry or cement body tile
- Impervious porcelain and glass tile
- Cement-based precast terrazzo
- Natural stone tile
- Terrazzo

Suitable Substrates
- Properly prepared concrete
- Existing ceramic/porcelain tile
- Cementitious and epoxy terrazzo

Composition of Product
TechLevel™ HPT is a proprietary dry blend of copolymers, cements, and inorganic chemicals.

Benefits of Product in the Installation
- Abrasion-resistant; holds up to traffic during construction
- Reduces bond failure and crumbling of resilient flooring
- Cures fast and develops high early-strength for quick installation
- Rated for extra heavy use on concrete and wood subfloors with joists to 24” (61 cm) per ASTM C627

Limitations to the Product
- For interior use only. Ambient, substrate and product temperature is to be between 50° F (10° C) 90° F (32° C). Chill or warm water when needed to make mixture fall between these temperatures.
- Substrate must be suitable for project usage.
- Do not use on sloped surfaces that require drainage.
- Precautions regarding excessive substrate deflection should be taken when applying over post-tensioned concrete, pre-stressed concrete or prefabricated concrete planks.
- TechLevel-HPT is a cement-based product and may require a suitable sealer, coating or paint for protection depending on service usage. The application of wax or polish in addition to a sealer may help to preserve the surface. Such materials will need to be reapplied on a regular basis.
- Sharp, rough and hard steel objects can damage cement based toppings such as TechLevel-HPT. Use protection boards for hard wheeled traffic and heavy equipment.

Packaging
50 lb (22.68 kg) Bag

4 Technical Data
Applicable Standards
ASTM International (ASTM)
TechLevel-HPT High Performance Topping

- ASTM C1708 Standard Test Methods for Self-leveling Mortars
- ASTM F2873 Standard Practice for the Installation of Self-Leveling Underlayment and the Preparation of Surface to Receive Resilient Flooring
- ASTM C627 Standard Test Method for Evaluating Ceramic Floor Tile Installation Systems Using the Robinson-Type Floor Tester
- ASTM F2170 Standard Test Method for Determining Relative Humidity in Concrete Floor Slabs Using in situ Probes
- ASTM F1869 Standard Test Method for Measuring Moisture Vapor
- ASTM F710 Standard Practice for Preparing Concrete Floors to Receive Resilient Flooring

Resilient Floor Covering Institute (RFCl) Recommended Work Practices for Removal of Resilient Floor Coverings

Tile Council of North America (TCNA) TCNA Handbook for Ceramic Tile Installation, TCNA Method EJ171

American National Standards Institute (ANSI) ANSI A108.01 and A108.02 of the American National Standards for the Installation of Ceramic Tile

Technical Properties Chart

<table>
<thead>
<tr>
<th>Property</th>
<th>Test Method</th>
<th>Typical Results @70°F (21°C) and 50%RH</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pot Life (in bucket)</td>
<td></td>
<td>&gt;20 minutes</td>
</tr>
<tr>
<td>Healing Time (Re-heat)</td>
<td>ASTM C-1708</td>
<td>10-15 minutes</td>
</tr>
<tr>
<td>Compressive Strength at 28 days</td>
<td>ASTM C-1708</td>
<td>&gt;6,000 psi</td>
</tr>
<tr>
<td>Flexural Strength at 28 days</td>
<td>ASTM C-348</td>
<td>&gt;1350 psi (9.3MPa)</td>
</tr>
<tr>
<td>Walkable Hardness</td>
<td></td>
<td>2-3 Hours</td>
</tr>
<tr>
<td>Installed Density - Dry</td>
<td></td>
<td>111.4-118.3 lb/ft³</td>
</tr>
<tr>
<td>Robinson Test</td>
<td>ASTM C-627</td>
<td>Extra Heavy</td>
</tr>
</tbody>
</table>

- Time Before Installing Flooring
  - Typical curing time for application of most sealers or coatings: >16-24 Hours
  - Ceramic tile/Non-moisture sensitive floor covering: >4 Hours
  - Moisture-sensitive floor coverings: >16 Hours

5 Instructions

General Surface Prep

USE CHEMICAL-RESISTANT GLOVES, such as nitrile, when handling product.

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Mix 50 lb. (22.68 kg) bag of powder with the appropriate amount of clean, cool water. Slowly add powder to water while mixing with a heavy-duty ½” (13 mm) electric drill and an “eggbeater” mixing paddle at minimum 650 RPM. Thoroughly mix for 2 minutes to a lump-free consistency. Do not overmix. Overmixing or moving the mixer up and down during the mixing process could trap air, which could shorten the pot life or cause pinholing during application and curing.

Application of Product
Pour the mixed product and spread with a long-handled gauge rake to the desired thickness. Directly after the topping has been dispersed, use a smoothing blade to break the material’s surface rheology and blend any inconsistencies to create a more uniform or homogeneous appearance. Keep a “wet edge” when pouring multiple mixes in the same area.

*** Always install a test area to confirm proper bonding as well as a desired appearance.

IMPORTANT NOTES: Self leveling cement based products may exhibit slight cracking due to structure and substrate moment; shrinkage; and creep. Sharp or reentrant wall corners can contribute to crack formation. These cracks are considered normal. Other causes of cracking are due to high ambient or substrate temperatures; wind or air flow; water ratios and mixing technique. When surface is sealed with clear or semi-transparent coatings, these cracks may become more visible.

Raw materials are naturally colored and therefore variations in colors should be expected. Mix batches from various pallets to achieve a more consistent color. Final finish color consistency can also be affected by water, wind, mixing, air flow etc., when being left as a wear surface.

Curing of Product
TechLevel-HPT is typically ready for water-based applied coatings after 4-6hrs. For epoxy and other moisture intolerant coatings at least 24hrs in moderate climatic conditions is typically required. See manufacturer’s recommendations and confirm during mock up.

Install non-moisture-sensitive ceramic tile or stone in 4 hours; all other floor coverings should be installed after 16 hours Cure time can vary with temperature and humidity. Confirm moisture limitations of flooring and adhesives before installing over leveler.

Cleaning of equipment
Clean with water before material dries.

Health Precautions
See Safety Data Sheet for complete safety information. This product contains Portland cement. Avoid eye contact or prolonged contact with skin. Wash thoroughly after handling. If eye contact occurs, flush with water for 15 minutes and consult a physician. Use with adequate ventilation; do not breathe dust and wear a NIOSH approved respirator. If ingested, do not induce vomiting; call a physician immediately.

Conformance to Building Codes
Installation must comply with the requirements of all applicable local, state and federal code jurisdictions.

6 Availability & Cost

<table>
<thead>
<tr>
<th>Location</th>
<th>Item Code</th>
<th>Size</th>
<th>Package</th>
</tr>
</thead>
<tbody>
<tr>
<td>USA/Canada</td>
<td>TLHPT50T</td>
<td>50lb (22.68 kg)</td>
<td>Bag</td>
</tr>
</tbody>
</table>

Contact the manufacturer or visit custombuildingproducts.com for more information about product cost and availability.

7 Product Warranty
Obtain the applicable LIMITED PRODUCT WARRANTY at www.customtechflooring.com/reference-library/warranties/ or send a written request to Custom Building Products, Inc., Five Concourse Parkway, Atlanta, GA 30328, USA. Manufactured under the authority of Custom Building Products, Inc. © 2017 Quikrete International, Inc

8 Product Maintenance
Properly installed product requires no special maintenance.

9 Technical Services Information
For technical assistance, contact Custom Building Products.

10 Filing System
Additional product information is available from the manufacturer upon request.
## Coverage

TYPICAL SQUARE FOOT COVERAGE PER 50 LB BAG (SQUARE METER PER 22.68 KG)

<table>
<thead>
<tr>
<th>THICKNESS</th>
<th>COVERAGE</th>
</tr>
</thead>
<tbody>
<tr>
<td>1/4&quot; (6.35 mm)</td>
<td>23 24 ft² (2.1 2.2 M²)</td>
</tr>
<tr>
<td>1/2&quot; (12.7 mm)</td>
<td>11.5 12 ft² (1.05 1.1 M²)</td>
</tr>
<tr>
<td>1&quot; (25.4 mm)</td>
<td>5.75 6 ft² (0.52 0.55 M²)</td>
</tr>
</tbody>
</table>

Chart for estimating purposes. Coverage may vary based on installation practices and jobsite conditions. For more sizes, use the material calculator at CustomBuildingProducts.com or contact CUSTOM Technical Services at 800-282-8786.