# ENDURACRETE HD

## TECHNICAL DATA SHEET

4 Pack Polyurethane Concrete Self Smoothing Topping

A & I Coatings ENDURACRETE HD is a 4-pack pigmented, solvent free, 100% solids Polyurethane Cement self smoothing topping. It has excellent surface hardness and adhesion. It can be applied as a smooth topping or as part of the Enduracrete SR system.

### USES & BENEFITS

• Concrete protection • Food and Beverage Processing Floors • Commercial Kitchens • Commercial Bars • Loading docks • Resurface damaged and worn concrete • Heavy duty impact flooring • Manufacturing Facilities • Secondary Containment areas • Freezers

**Benefits**

1. Exceptionally hard wearing
2. Heavy duty impact flooring
3. Can be applied to Concrete up to 10% moisture PBW. (7 days generally)
4. Coefficient Thermal expansion very similar to host concrete
5. Fast Cure and return to service
6. LOW Odour and Non DG

**Limitations**

1. Minimum surface temperature should be at least 3˚C above dew point.
2. Not UV Stable. (Can be overcoated with suitable UV stable finish-contact A&I Coatings)

Not available in Gloss-Low Sheen

### PHYSICAL PROPERTIES

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| Vehicle Type | Part A Water dispersed Polyurethane, Filler C-Cement/Lime/Aggregate |
| Hardener | Isocyanate |
| Mixing Ratio | Part A 3kg, Part B Hardner 3kg, Part C Filler 13.82kg, Part D colour 0.18kg.-20kg Kit |
| Abrasion Resistance | EN 13892-4 AR-0.5 |
| Finish | Low Sheen |
| Theoretical Coverage | 1.9kg/mm/m2. Typically 4mm/7.6kgm2 |
| Volume Solids | 100% |
| Recommended Thickness | 3-4mm |
| Compressive Strength | >50Mpa |
| Primer Required | For Smooth finish Prime using Enduracrete TC at 0.35kg/m2. Allow Enduracrete TC to cure min 10hrs (25degrees) but no longer than 24hrs (25 degrees) before overlaying. No primer generally required when used as part of the Enduracrete SR system. (See Enduracrete System Data sheet for more information) |
| Pot Life/Work Time | 15-20minutes at 25°C (once product dispersed on floor).If left in bulk will exotherm quickly |
| Flexural Strength | EN 196 / ASTM C109 20 N/mm2 |
| Product Weight | 1.9Kg/Litre |

### ENGINEERING DATA

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|---|---|
| Abrasion Resistance | EN 13892-4 - AR 0.5 |
| Chemical Resistance | Enduracrete TC displays resistance to many common chemicals in spill or splash situations at ambient temperatures. The following chemicals are an example only. Consult A&I for specific applications.<br>· Hydrochloric Acid (10%) · Nitric Acid (10%) · Sulfuric acid (40%) · Uric acid (concentrated) · Sodium hydroxide (10%) · Hydrogen peroxide (3%) · MEK<br>· Motor Oil · Kerosene · Turpentine · Skydrol · Hydraulic Fluid · Brake Fluid · Toluene<br>· Grease · Organic Food Matter · Wine · Diesel · Hydrocarbon solvents<br>Some chemicals may cause surface staining from prolonged exposure without impacting the coating integrity. Data is available on request. Exposure based on spill and splashes cleaned within 24hrs |
| Dry Heat Resistance | Up to 120°C |
| Wet Heat Resistance | Up to 70°C |
| Solvent Resistance | Excellent for many solvents |

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A&I COATINGS

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|---|---|---|---|---|---|
| **ENGINEERING DATA** | Durability | Excellent, but will chalk under UV exposure without damage to the integrity of the coating. | | | |
| **CURING DATA** | Substrate Temp.(°C) | Touch Dry | Light Foot Traffic | VehicularTraffic | Full Cure |
| | 25° | 8hrs | 12hrs | 48hrs | 7 days |
| | Note: When overcoating Enduracrete HD with itself, a minimum 10hrs cure is required. **If application occurs prior, blistering may occur.** No water or condensation should contact the coating for 2 days from installation. | | | | |
| **SURFACE PREPARATION** | Concrete | New concrete should be allowed to cure to be at below 10% Moisture content PBW.Concrete should be sufficiently hard to support mechanical preparation (7 days generally) Surface must be sound, dry, free from all loose material, laitance, old coatings, dust and surface contaminants (e.g. oil, grease, chemicals, release/curing agents etc.Concrete must be mechanically treated by abrasive blasting or coarse grinding to achieve a clean anchor pattern for best adhesion-ICRI SP3 minimum. 6mmx6mm saw cuts must be installed 75mm in from all perimeters,terminations,drains or penetrations. Concrete must have an effective damp proof membrane and concrete must be free from rising moisture. Concrete to be min 25Mpa compressive strength and 1.5Mpa pull off strength. | | | |
| **APPLICATION DATA** | Mixing | 1/ Mix Part A and D Colour into a mixing Pail and mix for 30 seconds<br>2/ Add Part B hardener and mix for 60 seconds using 400RPM mechanical mixer.<br>3/ Add Filler C and mix using 400RPM Mechanical mixer for 60 seconds until smooth lump free consistency achieved. Ensure mixing is to bottom, sides and top of Pail to consistency.<br>Once mixed pour the complete contents on to floor to maximize working time. | | | |
| | Application | Pin rake, flat trowel and spike roller. | | | |
| | Thinning | Not permitted | | | |
| | Cleaning | Xylene or Acetone | | | |
| | Application Limits | Apply product between 8-30°C and ensure substrate is 3degrees above dew point at time of application and initial cure. | | | |
| **PACKING & STORAGE** | Packing | 20kg Kits | | | |
| | Storage | 9 months if stored in sealed containers away from heat and moisture. | | | |

All applicable statutory regulations must be observed in the application of this product. Users must first read the Safety Data Sheet for Enduracrete HD. Users should familiarise themselves with all the safety aspects of the product prior to use. Please ensure the current Technical Data Sheet is consulted prior to specification or application of A & I Coatings products. A & I Coatings will in many instances provide Area Specific Instruction Sheets which contain detailed instructions on how to achieve desired results for specific areas. If the surface intended to be painted differs from the specification, please consult the A & I Coatings Technical team on 1800 819 585.

All surplus materials and empty containers should be disposed of in accordance with appropriate regional regulations/legislation. Note: The figures quoted for pot life and drying/curing times are not definitive. They are dependent on onsite conditions, such as volume of material mixed, ambient and substrate temperatures, weather and ventilation. DISCLAIMER Since the use and application of this product is beyond our control, we cannot be held responsible for product field performance. The information presented above is the result of our considerable experience with this product but is not to be construed as a performance warranty. For additional information, phone our Customer Service Centre on 1800 819 585, or e-mail helpdesk@aicoatings.com Visit our website for more products: www.aicoatings.com

A&I COATINGS

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