



# DURALTEX 1705, DURALTEX 1707

## CHEMICALLY RESISTANT EPOXY FLOOR COATINGS/TOPPING

### PACKAGING

#### Duraltex 1705

3 gal (11.4 L) unit (Clear & Standard Colors)

Code: TD4371203\$

15 gal (11.4 L) unit (Clear & Standard Colors)

Code: TD4371215\$

3 gal (11.4 L) pail (Special Colors, MTO)

Code: TD4371203\$

15 gal (11.4 L) pail (Special Colors, MTO)

Code: TD4371215\$

#### Duraltex 1707

3 gal (11.4 L) pail (Standard Colors)

Code: TD4373203\$

3 gal (11.4 L) pail (Special Colors, MTO)

Code: TD4373203\$

### CLEAN UP

Clean tools and application equipment immediately with acetone, xylene, or MEK. Clean spills or drips with the same solvents while still wet. Hardened DURALTEX 1705/1707 will require mechanical abrasion for removal.

### SHELF LIFE

2 years in original, properly stored, unopened package

### DESCRIPTION

**DURALTEX 1705** is a two component, 100% solids, epoxy-amine system that offers good chemical resistance to a broad range of solvents, salts, caustics and acids. **DURALTEX 1705** is used in trowel down or broadcast applications. **DURALTEX 1707** is a two component, flake filled, high build version of DURALTEX 1705 and is used for coating walls or floors. Both offer good abrasion and impact resistance and have been formulated to be user friendly, with low odor, long working life, and good application characteristics.

### PRODUCT CHARACTERISTICS

#### PRIMARY APPLICATIONS

- Chemical process and drainage areas
- Loading docks
- Aisles, ramps
- Waste water treatment facilities
- Industrial floors
- Food and beverage plants

#### FEATURES/BENEFITS

- Long term service life
- Good chemical resistance
- Use in trowel down or broadcast systems
- Flake filled version ideal for coating walls/floors

#### APPEARANCE

DURALTEX 1705 is available in Light Gray, Dark Gray, Tile Red, and Clear. DURALTEX 1707 is available in Light Gray, Dark Gray, and Tile Red.

### COVERAGE

Neat Coating (Floor/Wall)	ft <sup>2</sup> /gal (m <sup>2</sup> /L)
Duraltex 1705 (clear): prime coat	300 to 350 (7.4 to 8.6)
Duraltex (1705/1707): 1 <sup>st</sup> coat	70 to 90 (1.7 to 2.2)
Duraltex (1705/1707): 2 <sup>nd</sup> coat	70 to 90 (1.7 to 2.2)
Aggregate Broadcast Coating	ft <sup>2</sup> /gal (m <sup>2</sup> /L)
Duraltex 1705: 1 <sup>st</sup> coat	70 to 90 (1.7 to 2.2)
Broadcast aggregate	1 to 2 lbs/ft <sup>2</sup> (4.9 to 9.8 kg/m <sup>2</sup> )
Duraltex 1705: each added coat	70 to 90 (1.7 to 2.2)
Broadcast aggregate	1 to 2 lbs/ft <sup>2</sup> (4.9 to 9.8 kg/m <sup>2</sup> )
Duraltex 1705: Seal coat	140 to 160 (3.4 to 3.9)

Trowel Down Coating	ft²/gal (m²/L)
Duraltex 1705 (clear): prime coat	300 to 350 (7.4 to 8.6)
<b>Trowel coat 1/4" (6.4 mm) thick (mortar):</b>	
3 gal (11.4 L) silica sand 20/40 mesh	18 to 20 (0.44 to 0.49)
1 gal (3.8 L) Duraltex 1705	
<b>Trowel coat 1/16" to 1/8" (1.6 to 3.2 mm) thick (mortar):</b>	
4.5 gal (17.0 L) graded aggregate	24 to 26 (0.59 to 0.64)
1 gal (3.8 L) Duraltex 1705	

**Note:** Coverage rates are approximate. Actual coverage depends on temperature, texture, and substrate porosity.

## TECHNICAL INFORMATION

The following are typical values obtained under laboratory conditions. Expect reasonable variation under field conditions.

Test Method	Test Property	1705	1707
N/A	Mix Ratio (A:B by volume)	2:1	2:1
N/A	Viscosity (mixed)	1,500 to 3,500 cps	4,000 to 6,000 cps
N/A	Pot Life (3 gal, 11.4 L)	12 to 18 min	12 to 18 min
N/A	Gel Time (100g)	25 to 35 min	25 to 35 min
N/A	Tack Free (75 °F (24 °C)	5 to 8 hrs	5 to 8 hrs
ASTM D2240	Hardness Shore D (1 day)	90 to 95	90 to 95
ASTM D695	Compressive Strength	9,000 to 10,000 psi (62.1 to 68.9 MPa)	9,000 to 10,000 psi (62.1 to 68.9 MPa)
N/A	Compressive Strength: Graded Aggregate 8:1 by wt	12,000 to 13,000 psi (82.7 to 89.6 MPa)	N/A
N/A	Compressive Strength: Silica Sand 20/40 mesh 3:1 by wt	6,000 to 7,500 psi (41.4 to 51.7 MPa)	N/A
ASTM D638	Tensile Strength	5,000 to 5,500 psi (34.5 to 37.9 MPa)	5,000 to 5,500 psi (34.5 to 37.9 MPa)
ASTM D638	Elongation at Break	2 to 8 %	2 to 6 %
ASTM C722	Compliance	Yes	Yes

Values presented are typical and are not necessarily referenced to create specifications.

## CHEMICAL RESISTANCE

1 = Long term exposure (30 days)

2 = Extended Exposure (7 days)

3 = Splash/Spill (72 hours)

4 = Incidental Contact (8 hours)

D = Discoloration may occur

NR = Not Recommended

Acetic Acid, 10%	3	Hydrogen Peroxide, 35%	2D
Acetic Acid, 50%	4	Lactic Acid, 85%	2
Ammonia, 29%	1	Methanol	4
Ammonium Sulfate, 50%	1	Methyl Ethyl Ketone	4
Brake Fluid	1	Methylene Chloride	NR
Calcium Chloride	1	Mineral Spirits	1
Chromic Acid, 10%	1	Nitric Acid, 10%	2
Chromic Acid, 50%	2	Nitric Acid, 45%	4
Citric Acid, 10%	1	Phosphoric Acid, 10%	1
Citric Acid, 50%	2	Phosphoric Acid, 85%	3
Diethanolamine	2	Potassium Hydroxide, 50%	1
Ethyl Acetate	4	Propylene Glycol	2
Ethyl Alcohol, 95%	3	Skydrol	1
Ethylene Glycol	2	Sodium Hydroxide, 50%	2
Ferric Chloride, 50%	3D	Sodium Hypochlorite, 10%	2D
Formaldehyde, 37%	1	Sulfuric Acid, 10%	1
Formic Acid, 25%	4	Sulfuric Acid, 75%	1
Formic Acid, 98%	4	Sulfuric Acid, 98%	4D
Gasoline	2	Toluene	2
Hydrochloric Acid, 10%	1	Trichloroethane	2
Hydrochloric Acid, 37%	2D	Vegetable Oil	1
Hydrofluoric Acid, 25%	4D	Xylene	2

**Note:** Applicable for individual chemicals only, for exposure at room temperature to coatings applied at a minimum film thickness of 40 mils.

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## DIRECTIONS FOR USE

**Surface Preparation:** The surface must be structurally sound, clean and free of grease, oil, curing compounds, soil, dust and other contaminants. See note in "Precautions/Limitations" section if coating is to be placed over old/existing epoxy or urethane coatings. New concrete and masonry must be at least 28 days old. Surface laitance must be removed. Concrete surfaces must be roughened and made absorptive, preferably by mechanical means, and then thoroughly cleaned of all dust and debris. If the surface was prepared by chemical means (acid etching), a water/baking soda or water/ammonia mixture, followed by a clean water rinse, must be used for cleaning, in order to neutralize the substrate. The Concrete Surface Profile (CSP) should be equal to CSP 2-5 in accordance with Guideline 310.2R-2013, published by the International Concrete Repair Institute (ICRI). Allow substrate to dry before coating application. Following surface preparation, the strength of the surface can be tested if quantitative results are required by project specifications. An elcometer or similar tensile pull tester may be used in accordance with ASTM C1583, and the tensile pull-off strength should be at least 250 psi (1.7 MPa).

Do not apply epoxy or urethane coatings if there is excessive moisture in the concrete, or if the moisture vapor emission rate (MVER) is high. Before application of DURALTEX 1705/1707, perform either of these tests: **ASTM F2170** - Standard Test Method for Determining Relative Humidity in Concrete Floor Slabs Using In-Situ Probes, or **ASTM F1869** - Standard Test Method for Measuring Moisture Vapor Emission Rate of Concrete Subfloor Using Anhydrous Calcium Chloride. If the relative humidity is 85% or greater, or the MVER is 3 lbs/1000 ft<sup>2</sup>/24 hrs or greater, use a moisture mitigation system such as Dural Aquatight 100 PLUS or Dural Aquatight WB. After surface preparation and moisture testing, a test section application is recommended to confirm good adhesion and compatibility of the coating with the surface, and to confirm appearance and aesthetics.

When coating steel, all contamination should be removed and the steel surface prepared to a "near white" finish (SSPC SP10) using clean, dry blasting media.

**Mixing:** Mix DURALTEX 1705/1707 using a low-speed drill and a mixing paddle. Pre-mix Part A and Part B separately for approximately 1 minute each. Combine Part A and Part B in a 2:1 ratio by volume, then mix thoroughly for 3 to 5 minutes.

To make DURALTEX 1705 mortar, gradually add clean, dry aggregate to previously mixed DURALTEX 1705 epoxy and mix thoroughly for 3 to 5 minutes. Aggregate types and quantities for mixing are listed in the "Coverage" section above. A low-speed drill and a mixing paddle may be used for small quantities, and a horizontal shaft mortar mixer may be used for large quantities. Do not blend aggregate with DURALTEX 1707; only blend aggregate with DURALTEX 1705.

Scrape the bottom and sides of the containers at least once during mixing. Do not scrape bottom or sides of the container once mixing operations have ceased; doing so may result in unmixed resin or hardener being applied to the substrate. Unmixed resin or hardener will not cure properly. Do not aerate the material during mixing. To keep aeration to a minimum, the recommended mixing paddles are #P1 or #P2 as found in ICRI Guideline 320.5R-2014.

**Application:** See the "Epoxy & Urethane Coatings Application Guide" for installation means and methods. Note that any coverage rates or mixing ratios for epoxy or epoxy-aggregate combinations found in the "Epoxy & Urethane Coatings Application Guide" are approximations, and are for general reference only. For product-specific coverage rates and mixing ratios, refer to this technical data sheet.

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## PRECAUTIONS/LIMITATIONS

- Store DURALTEX 1705/1707 indoors, protected from moisture, at temperatures between 50 °F and 90 °F (10 °C and 32 °C)
- Surface and ambient temperature during coating applications should be between 50 °F and 90 °F (10 °C and 32 °C)
- Material temperatures should be at least 50 °F (10 °C) and rising
- Do not apply DURALTEX 1705/1707 if surface temperature is within 5 °F (3 °C) of the dew point in the work area
- Working time and cure time will decrease as the temperature increases, and will increase as the temperature decreases
- Do not thin DURALTEX 1705/1707
- When a vapor barrier is utilized in on-grade applications of DURALTEX 1705/1707, it must be installed directly under the slab
- Although DURALTEX 1705/1707 is chemically resistant, surface staining of the coating may occur after contact with some chemicals. Consider the use of a urethane topcoat such as EUCOTHANE for improved stain resistance.
- DURALTEX 1705/1707 will discolor upon prolonged exposure to ultraviolet light and high-intensity artificial lighting. An aliphatic urethane topcoat such as EUCOTHANE can minimize these effects.
- Depending on the condition of the substrate, minor surface defects can appear in the coating when applied. Proper surface prep, patching of substrate imperfections, and priming will ensure a better overall finish.
- If coating over old/existing epoxy or urethane coatings, or if more than 24 hours elapses between coats: sand the previous coat, wipe clean, and proceed with coating operations. If old/existing coatings are peeling, flaking, etc., all unsound material must be removed prior to new coating applications.
- Application of a test area is recommended to confirm final appearance and texture of the system with the end user
- Do not blend aggregate with DURALTEX 1707; only blend aggregate with DURALTEX 1705
- In all cases, consult the product Safety Data Sheet before use

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