

## TECHNICAL DATA SHEET

## Armour-Thane

### DESCRIPTION

**Armour-Thane** is a uniquely versatile high-performance hybrid polyurethane top coat. **Armour-Thane** is a clear two component thermosetting, low odor, 100% solids, U-V stable urethane. It has been designed to be used in areas that require maximum abrasion and wear resistance. For applications with relative humidity <40% and/or temperatures <60°F ("low range"), **Armour-Thane F-Resin** is available. For applications with relative humidity >70% and/or temperatures >70°F ("high range"), **Armour-Thane HH-Resin** is available. For all other applications, **Armour-Thane S-Resin** should be used. For installations requiring a low gloss finish, **Armour-Thane Satin** and **Satin F-Resins** are available.

### FEATURES & BENEFITS

- ◆ Excellent Abrasion Resistance
- ◆ No VOC, Low Odor
- ◆ U-V Stable
- ◆ High & Low Humidity Curable
- ◆ High & Low Gloss
- ◆ Applicable up to 6 mils
- ◆ **Armourcolor Universal Colorants**
- ◆ **MicrobeBLOK** Antimicrobial

### COLORS

See "Color Guide"

### TYPICAL USES

- ◆ Laboratories
- ◆ Hospitals
- ◆ Garages
- ◆ Hangars
- ◆ Pharmaceutical Plants
- ◆ Kennels
- ◆ Clean Rooms
- ◆ Schools
- ◆ Kitchens
- ◆ Commercial/Retail

### PACKAGING

- ◆ 1 gallon metal pail - Resin
- ◆ 1 gallon black pail - Hardener.

### STORAGE

Materials should be stored indoors between 60°F (16°C) and 90°F (32°C).

### SHELF LIFE

One (1) year from date of manufacture.

### LIMITATIONS

This product is best suited for application in temperatures between 60°F and 90°F. Some light colors may require multiple coats for adequate hiding power. Certain colors appear white when scratched. Slight batch-to-batch color variations may occur. When ordering to match a previous color, inquire if the same batch number or quality control number is still available.

### OPTIONAL

- ArmourGrip** (non-skid)
- ArmourWear** (wear resistance)
- ArmourColor Universal Colorants** (on-site pigmenting)
- MicrobeBLOK** (anti-microbial)

### PRODUCTS GUIDE

1. **Armour-Thane S-Resin** offers extended working time up to 40 minutes at 70°F, 50% RH. Rising temperatures above 70°F will measurably reduce working time. When mixed at **1 part Resin and 2 parts Hardener**, it can be applied from 3-6 mils in thickness.

2. **Armour-Thane F-Resin** is designed for use when the relative humidity is below 40%, and/or the ambient temperature is below 60°F. This resin will also provide an accelerated cure for fast-track applications when the relative humidity is above 50%, and/or the ambient temperature is above 60°F. When mixed at **1 part Resin and 2 parts Hardener**, it can be applied from 3-6 mils in thickness.

3. **Armour-Thane HH-Resin** offers optimal working times in higher temperatures and relative humidities. It's best applied at temperatures of 70°F and rising humidities above 70%, with working times up to 40 minutes. When mixed at **1 part Resin and 2 parts Hardener**, it can be applied from 3-6 mils in thickness.

4. **Armour-Thane Satin Resin** is a low gloss, high performance finish coat offering similar working time to the **Armour-Thane Resin**. When mixed at **1 part Resin and 1 part Hardener**, it can be applied from 3-4 mils in thickness.

5. **Armour-Thane Satin F-Resin** is designed for use when the relative humidity is below 50%, and/or the ambient temperature is below 60°F. This resin will also provide an accelerated cure for fast-track applications when the relative humidity is above 50%, and/or the ambient temperature is above 60°F. When mixed at **1 part Resin and 1 part Hardener**, it can be applied from 3-4 mils in thickness.

6. **Armour-Thane Hardener** is used with ALL the **Armour-Thane Resins**.

### PRELIMINARY FLOOR INSPECTIONS

#### CHECK THE TEMPERATURE AND HUMIDITY:

**Armour-Thane** is sensitive to moisture and temperature during application and curing. Floor temperature and materials should be between 65°F (18°C) and 90°F (32°C). Humidity must be less than 90%. DO NOT coat unless floor temperature is more than five degrees over the dew point.

### COVERAGE RATE

A gallon of **Armour-Thane** will cover in the following manner, with a **standard spread rate** for a finish topcoat at 3-6 mils or 267-534 s.f. per gallon. \*Application of body/grout and topcoats are variable in thickness depending upon condition of substrate and type of system.

### RECOAT REQUIREMENTS

In the event of a recoat application beyond 36 hours, the existing topcoat should be lightly ground using 100-grit diamonds, vacuuming, and tack-wiping before re-application. Please call **Armourflo** technical support for further instructions.

### MIXING INSTRUCTIONS

#### Application Equipment:

- ◆ Personal Protective Equipment (PPE) & clothing per SDS (Safety Data Sheet)
- ◆ Jiffy® Mixer Blade (ES Model)
- ◆ Clean Mixing Container
- ◆ Low Speed /High Torque Power Drill
- ◆ Shed-Resistant Roller Cover- 3/8" Nap or 1/4" Roller Nap
- ◆ Wide-Boy Bucket for "Dip 'n' Roll"

See "Products Guide" for mix ratio. **8 oz. of ArmourColor Universal Colorant** is recommended **per gallon** of material. When field pigmenting, it should be added and mixed in homogenously to the resin prior to adding the hardener. When combining, be sure to add the resin (clear or pigmented) into the clean mixing container first. Then add the hardener scraping out the container. Always pour into the **center** of the mixing container. Mix the components thoroughly for **1-2 minutes** with a Jiffler ES style mix blade. Mix only enough material at one time that can be applied without exceeding the pot life.

◆ **ArmourWear** additive is available for enhanced abrasion and wear resistance in the **Armour-Thane** finish coat. NOT to be used in WET areas. 1 quart can per 1.5 gallon mix. **ArmourGrip** additive can be included for enhanced non-slip resistance. 4-6 ozv. per gallon of liquid.

### CLEANING GUIDELINES & MAINTENANCE

Allow floor coating to cure at least 3 days before cleaning by mechanical means (e.g., sweeper, scrubber, disc machine).

### CARE

Proper maintenance will increase the service life and help maintain the appearance of your new **Armourflo** floor coating system. This product is considered to be a low maintenance coating system, however, certain textures and service environments require specific procedures. SEE "CLEANING GUIDELINES" for more information.

### CAUTION

Avoid scratching or gouging the surface. All floor coatings will scratch if heavy or sharp objects are dragged across the surface.

Do not drop heavy or pointed items on the floor as this may cause chipping or concrete pop-outs in the case of a weak substrate cap.

Rubber tires can permanently stain the floor coating from plasticizer migration. In warehouse & industrial settings, the use of non-marking tires is highly recommended to prevent discoloration. Rubber burns from quick stops and starts can heat the coating to its softening temperature, causing permanent marking.

### REPAIRS

Repair gouges or scratches or chip outs as soon as possible to prevent moisture or chemical contamination.

**Warranties:** Seller warrants that its goods, as described on the face hereof, are free from any defects in material or workmanship. Seller makes no other warranty, express or implied, and all implied warranties of merchantability and fitness for a particular purpose are hereby disclaimed. Seller shall not be liable for prospective profits or special indirect or consequential damages. Seller's sole liability and buyer's exclusive remedy for breach of any warranty as expressly limited, at seller's option, to replacement at the original F.O.B. point or refund of purchase price. Seller shall not be responsible for any claim resulting from failure to utilize product in the manner in which it was intended and in accordance with instruction provided for use of product. Any claim for breach of warranty shall be deemed waived unless buyer shall give seller written notice of such claim within sixty (60) days after delivery and shall allow seller reasonable opportunity to investigate claim and inspect product.

### DISPOSAL

Dispose in accordance with federal, state and local regulations.

### TECHNICAL SUPPORT

For any application questions, please call **Armourflo** technical support at **502.208.4067**.

### SDS

PLEASE SEE SAFETY DATA SHEET (SDS) FOR SAFETY AND PRECAUTIONS. USE PRODUCT AS DIRECTED. **KEEP OUT OF THE REACH OF CHILDREN.**

PHYSICAL CHARACTERISTICS	
Percentage solids by weight	100%; 96% Satin Resin
Mix Ratio (by volume)	Armour-Thane S, F, and HH- 1 part Resin: 2 parts Hardener Armour-Thane Satin & Satin F - 1 part Resin: 1 part Hardener
Viscosity at 70°F	800 cps (average)
Pot life at 70°F	60 minutes (average)
Cure Time, Tack-Free at 70°F, 50% Relative Humidity	Armour-Thane S-Resin: 10-12 hours foot traffic Armour-Thane Satin & HH-Resin: 18-24 hours foot traffic Armour-Thane F & Satin F-Resins: 6-8 hours foot traffic 48 Hours, HH-Resin; 24 Hours, S & F-Resin
Full Traffic	
Working Time at 70°F, 50% Relative Humidity	Armour-Thane HH-Resin: 40+ Minutes Armour-Thane S-Resin: 40 minutes Armour-Thane Satin Resin: 40+ minutes Armour-Thane F & Satin F-Resins: 15 minutes
Recoat Window	Maximum of 36 hours (F-Resins: 24 hours)
Coverage Rate	6 mils, 267 sq ft/US gallon 3 mils, 534 sq ft/US gallon
Volatile Organic Compound	(VOC) nil

PHYSICAL PROPERTY	TEST METHOD	RESULT
Konig Hardness (3 mils)	ASTM D-4366	171
Tensile Strength	ASTM D-2370	6,500 psi
Tensile Elongation	ASTM D-2370	8%
Adhesion	ASTM D-4541	400 psi, concrete failure (applied over epoxy)
Impact Resistance	ASTM D-2794	>160 in/lb
Water Absorption	ASTM D-570	<0.1%
Flame Test (3 mils over cement board)	ASTM D-648	Class 1
Abrasion Resistance CS17 Wheel 1000 GM Load 1000 Cycles	ASTM D-4060	10-15 mg loss, 24 hours 5-10 mg loss, 72 hours
Coefficient of Friction (James Friction Tester) Wet Dry	ASTM D-2047	0.7 (smooth) 0.8 (smooth)