

ULTRASHIELD

**ELASTOMERIC ACRYLIC ROOF COATINGS
MEETS FEDERAL SPECIFICATION RRR-S-2838 & ASTM D6083**

TECHNICAL DATA

PRODUCT DESCRIPTION: ULTRASHIELD is a water-based, high solids elastomeric coating utilizing the latest advances in acrylic technology. Highest quality 100% acrylic resins are combined with reinforcing laminar pigments, an effective biocide package and non-migrating fire retardants, resulting in superior durability, weatherproofing, ultraviolet resistance, algae/mildew resistance and fire retardancy. ULTRASHIELD is a highly reflective, permanently flexible “breathing” membrane, allowing moisture vapor from the substrate or building interior to escape while remaining impervious to mass water penetration from the exterior. ULTRASHIELD is also available in a high-tensile strength version for roof areas subject to severe maintenance traffic, weather conditions, chemical fallout, etc.

BASIC USES: ULTRASHIELD was especially developed for extending the life of metal, conventional built-up, modified bitumen, concrete, Hypalon, EPDM, sprayed-in-place or board-stock insulation, or composite shingle roofs. ULTRASHIELD forms a waterproof elastomeric seal, uniformly covering the textured profile of various substrates to form a monolithic membrane, providing protection from normal weathering, aging and ultraviolet exposure.

COLORS: ULTRASHIELD is stocked in White, Light Gray or Medium Gray. An unlimited selection of custom colors are also available for specific applications. Color chips must be furnished to UNITED for all custom colors. ULTRASHIELD QS (Quick Set) is available for marginal conditions when a faster set time is desired with white or light colored topcoats.

WARRANTY: The ULTRASHIELD warranty is available for a ten (10) year period. The warranty guarantees the installation against leaks caused by normal weathering. Refer to warranty documents for additional information.

TYPICAL PROPERTIES

- Solids by Weight:**
60% (±2) [ASTM D2369]
- Solids by Volume:**
54% (±2) [ASTM D5201]
- Weight per Gallon:**
11.8 lbs. (±.2) (1.41 kg/l) [ASTM D1475]
- Dry Time for Water Resistance:***
2½ hours @ 70°F (21°C), 50% R.H.
White @ 16 wet mils (406 microns)
*Required time will increase @ higher humidities
- Tensile Strength:**
250 psi (±20) (1.80 MPa) @ 75°F (24°C)
440 psi (±20) (3.17 MPa) @ 0°F (-18°C) [ASTM D412]
- Elongation:**
300% (±30) @ 75°F (24°C)
340% (±30) @ 0°F (-18°C) [ASTM D412]
- Hardness:**
55-65 Shore A [ASTM D2240]
- Permeance:**
3.0 U.S. perms (1.98 Metric Perm)
@ 20 mils (508 microns) [ASTM E96]
- Ultraviolet Resistance:**
No deleterious effects after 5,000 hours
[ASTM D822, ASTM G23]
- Weather Resistance:**
No deleterious effects after 5,000 hours
[ASTM D822, ASTM G23]
- High Temperature Stability:**
No age hardening up to 250°F (121°C)
[ASTM D794]
- Resistance to Wind Driven Rain:**
0.3% moisture result
[Federal Specification TTC-555B]
- Bond Strength:**
Exceeds cohesive strength of coating [ASTM C297]
- Temperature Limits for Service Conditions (Surface):**
-30°F to 180°F (-35°C to 82°C)
- Code Approvals:**
UL 790 Class A, Factory Mutual Class I and ICBO

**COOL ROOF
SYSTEMS**

July, 2003

ADVANTAGES OF ULTRASHIELD

The Following Advantages Combine To Make **ULTRASHIELD** The Most Effective, Low-Cost Method Of Extending The Life Of New Or Existing Roof Surfaces.

1. Low Cost Application:

Fewer men can do the work that used to require many, at a fraction of the cost of other roofing systems. No bulky or expensive materials to haul, lift, spread, cut or glue. Simply apply **ULTRASHIELD** using a brush, roller or spray over the **properly prepared roof substrate**. Water cleanup further simplifies the job, which also conforms to all federal and state air pollution standards and VOC regulations.

2. Fast Application:

Roofs protected with **ULTRASHIELD** can be prepared and coated significantly faster than applying conventional built-up or single-ply systems.

3. High Solids and Resin Content:

The high volume solids of **ULTRASHIELD**, along with its high hide and vertical hold characteristics, allows for higher film build in fewer coats. This enables **ULTRASHIELD** to uniformly cover the uneven profile of textured substrates. The high ratio of 100% elastomeric acrylic polymer to filler pigment provides long-term weathering and ultraviolet resistance.

4. Lightweight:

An **ULTRASHIELD** roof is lighter than conventional and single-ply systems, putting less stress on the rest of the building. No glue, fasteners or heavy ballasting is required.

5. Permanent Flexibility:

ULTRASHIELD contains no migratory plasticizers, which may give good initial elasticity but leach out of the coating upon extended exterior exposure. **ULTRASHIELD** remains permanently flexible through the use of high grade, 100% elastomer acrylic polymers.

6. Colorfast:

The acrylic resins utilized in **ULTRASHIELD** crosslink under exterior exposure to lock in color and lock out dirt. The topcoat color remains true through years of weathering, while the tight, crosslinked surface repels dirt to remain clean.

7. Low Maintenance Costs:

With an **ULTRASHIELD** roof there is no asphalt to degrade, metal to corrode or seams to come apart. It is formulated to remain flexible to -30°F (-35°C) without cracking under stress, and is impervious to minor ponding water associated with most roofs. When maintenance is required, the repair is accomplished with the use of an acrylic caulk or touch-up with additional **ULTRASHIELD**.

8. Resists Abusive Weather:

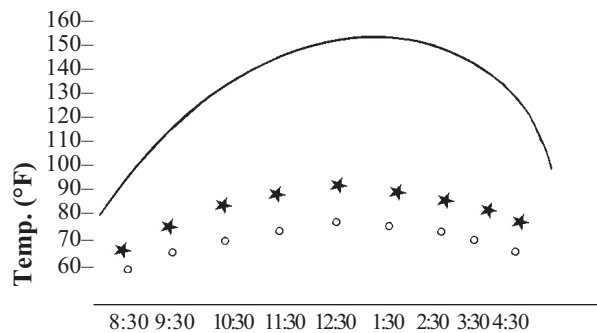
ULTRASHIELD will take abusive weather conditions of all types. Ice, snow, wind driven rain and sand do not penetrate its tough, dense surface under normal conditions.

9. Long Term Fire Protection:

ULTRASHIELD utilizes non-migratory fire retardants that become an integral and inseparable part of the coating to provide permanent fire retardancy.

10. Reduced Energy Cost:

ULTRASHIELD topcoat remains white to reflect the sun's heat, unlike dark-colored roofs that retain heat and are subject to ultraviolet degradation. Roof temperatures can be reduced in excess of 50°F.



★ ★ ★ ★ Black uncoated shingles

○ ○ ○ ○ ○ White **ULTRASHIELD** coated shingles

———— Air temperature

11. Resistance To Foot Traffic:

ULTRASHIELD'S tough finish, together with its flexibility and bond strength characteristics, allow it to easily withstand the stresses of normal roof maintenance traffic.

12. Code Approvals:

ULTRASHIELD is UL classified as a Class "A" Fluid-Applied Coating System, and as a Class A, B or C Maintenance & Repair System as outlined in the UL Roofing Materials & Systems Directory. It is Factory Mutual Approved for recover over FMRC-rated BUR or insulated metal panels. **ULTRASHIELD** is also ICBO evaluated and listed.

13. Warranty Programs:

ULTRASHIELD is backed by a 10-year, non-prorated warranty program. This guarantees to the Building Owner that the coating system will not leak as result of degradation from normal weathering.

**COOL ROOF
SYSTEMS**

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Our products are guaranteed to meet established quality control standards. Information contained in our technical data is based on laboratory and field testing, but is subject to change without prior notice. No guarantees of accuracy are given or implied, nor does UNITED assume any responsibility for coverage, performance or injuries resulting from storage, handling or use of our products. Liability, if any, is limited to product replacement or, if applicable, to the terms stated within the executed project warranty.