



# Apex Multi 45

## Technical Data Sheet



Apex Multi Limestone Based Cementitious Underlayment is designed for use on both new and existing subfloors, providing a durable, high-strength surface ideal for various flooring systems. This versatile underlayment is perfect for both residential and commercial applications, offering superior performance in terms of compressive strength and sound attenuation.

With a high-strength formula, it achieves a compressive strength range of 4000 - 5000 psi (27.6 - 34.5 MPa) and is highly resistant to surface abrasion, making it suitable for areas with high foot traffic. The underlayment's crack-resistance ensures a stable base for all types of floor coverings, including tile, carpet, vinyl, and hardwood.

Apex Multi Limestone Cement-Based Underlayment is especially effective in multifamily housing, commercial environments, and renovation projects, offering both enhanced soundproofing and fire-resistant properties. Its quick drying time minimizes downtime, allowing flooring installations to proceed quickly after application. Whether used in new construction or renovations, this product provides a reliable, long-lasting base for all flooring systems

### Key Features & Benefits

- High compressive strength and impact resistance.
- Suitable for use in wet areas and high-moisture environments.
- Provides improved sound attenuation properties.
- Ideal for multi-family wood frame and concrete construction.
- Recommended installation thickness of 3/8" to 3" in a single pour.

### Application Areas

- Suitable for use in residential, commercial, and renovation projects.
- Compatible with a wide range of substrates, including concrete slabs, pre-stressed concrete, concrete planks, concrete repair or leveling surfaces, OSB, plywood, and radiant heat systems.
- Suitable for installation over sound attenuation systems designed for flooring applications.
- Can be applied in UL fire-rated assemblies.
- Compatible with a variety of floor coverings, such as vinyl, carpet, hardwood, and floor tiles.

### Installation

Apex Multi Floor Underlayment is mixed with approved sand and potable water at the job site to yield a lightweight underlayment that weighs approximately 10 lbs./sq. ft. at 1 in. (25 mm) thickness and has an approximate dry density of 120 lbs./cu. ft. Apex Multi must only be installed by a trained and licensed Apex Multi applicator.

The structural subfloor should be adequate to withstand designed loads with a minimum deflection criterion of  $L/360$ .

During the entire installation process, ensure the building is fully enclosed, with the temperature maintained at a minimum of 50 °F (10 °C) for optimal curing conditions. Adequate ventilation is essential to ensure even drying of the applied underlayment, which typically occurs within 5–7 days when applied at a 1 in. (25 mm) thickness.

Protect the underlayment from excessive trade traffic (e.g., equipment, heavy tools, carts) by placing plywood or other protective materials over it. Exposure to heavy weight during the curing process can delay drying in those areas, so ensure these sections are thoroughly dry before installing flooring materials.

## Concrete Subfloor Preparation

Mechanically prepare the substrate to remove surface contamination and laitance including any concrete sealers or curing compounds and provide an open textured surface.

Substrate must be dry, clean and free from loose materials, dirt, oil, grease and all forms of contamination.

Use a suitable bonding agent to ensure solid bonding of the underlayment to the substrate.

If the substrate is  $>85\%RH$ , then a Moisture Mitigation Product will be required.\*

If the substrate is  $<85\%RH$ , then an acrylic primer will be required.

\*Always comply with the Moisture Mitigation manufacturer's guidelines. Respect existing expansion and control joints, and ensure they are properly accommodated during installation.

## Wood Subfloor Preparation

Wood subfloors must be structurally sound, clean, and free of dust and contaminants. Wood subfloors must be primed with an acrylic primer prior to Apex Multi underlayment application

**Note:** This underlayment is not a structural material and will not resist building movement. Any structural movement in the building can cause stress that may result in cracking of the underlayment

## Technical Information

|                                                       |                                                                                                     |
|-------------------------------------------------------|-----------------------------------------------------------------------------------------------------|
| <b>Compressive Strength (28 days)</b>                 | <b>4000 - 5000 psi (27.6 - 34.5 MPa)</b>                                                            |
| Dry Density                                           | 115 – 125 lb/ft <sup>3</sup>                                                                        |
| Water Demand                                          | 3.5 – 4.5 gallons per 80lb bag - or - 0.36 – 0.47 lbs of water per 1lb of Apex Multi Underlayment   |
| Sand Ratio                                            | 1.4 – 1.9 cu.ft of Sand per 80lb Bag - or - 1.5 – 2.0 parts Sand to 1 part Apex Multi Underlayment. |
| Flow Rate                                             | 8” – 9”                                                                                             |
| Curing Time                                           | 12 hours                                                                                            |
| Drying Time                                           | 5-7 days depending on thickness and ambient conditions                                              |
| Thickness Range                                       | 3/8” to 3” in a single pour                                                                         |
| Weight per Bag                                        | 80 lbs bags and 2500lbs Super Sacks                                                                 |
| Surface Burning Properties (ASTM E84) Flame Spread: 0 | Flame Spread: 0, Fuel Contribution: 0, Smoke Density: 0                                             |

## Storage and Shelf Life

|                    |                                                                                    |
|--------------------|------------------------------------------------------------------------------------|
| Storage Conditions | Store in a cool, dry place, protected from moisture and extreme temperatures.      |
| Shelf Life         | 12 months from the date of manufacture when stored in unopened, original packaging |

## Contact Information

|                               |                          |
|-------------------------------|--------------------------|
| Manufacturer                  | Apex Minerals LLC        |
| Customer Service Phone Number | 001 201 254549           |
| Email                         | contact@apexminerals.com |
| Website                       | apexminerals.com         |

## Limitations

1. Do not use in exterior applications.
2. Do not over water or over sand.
3. Do not use as a wear surface.
4. Do not pour over expansion or isolation joints. Continue all movement joints in the concrete slab up through the layer of underlayment. In areas where the expansion or isolation joints are not present in the floor or where the concrete slab has developed systematic cracks in response to slab movement, consult with an engineer on the project or request the services of a licensed structural engineer.
5. Apex Multi underlayments are non-structural. The structure shall be designed so that deflection does not exceed  $L/240$  from combined dead and live loads and  $L/360$  from live loads.
6. It is the responsibility of the general contractor to complete moisture testing before underlayment is installed. If testing is necessary, use the methods specified by the flooring manufacturer, typically ASTM F710. If the RH is greater than 85%, treat the concrete subfloor with a suitable Moisture Mitigation Product. If the flooring manufacturer specifies more stringent moisture limitations or practices, they must be followed.
7. Trade traffic may resume 24 hours after installation. After trades resume, the underlayment may be exposed to rolling dynamic loads. To limit damage where underlayment will be subjected to heavy wheeled or concentrated loads, place temporary wood planking over the underlayment.
8. Apex Multi Floor Underlayment Systems are only one component of an effective floor-ceiling fire rated, and sound rated assembly. Care must be taken in the installation of all construction.

## Submittal Approvals

Project/Job Name: \_\_\_\_\_

Date: \_\_\_\_\_

Contractor: \_\_\_\_\_

