PART 1 - GENERAL

1.1 SUMMARY

A. This is the recommended specification for ARDEX K 55 MICROTEC premium high flow self-leveling Underlayment for use over specified interior substrates.

1.2 SECTION INCLUDES

A. ARDEX K 55 MICROTEC premium high flow self-leveling underlayment

1.3 QUALITY ASSURANCE

A. Installation of the ARDEX K 55 MICROTEC must be by a factory trained applicator, such as an ARDEX LevelMaster Elite Installer, using mixing equipment and tools approved by the manufacturer. Contact ARDEX at (888) 512-7339 for recommended installers..
B. Underlayment shall be able to be installed from 1/16” to 1” neat over large areas and can also be featheredged to match existing elevations.
C. For thin applications, the profile of the substrate can affect the flatness and smoothness of the ARDEX K 55 MICROTEC. The thickness of the application should be calculated based on the surface profile of the substrate and the specified tolerances of the floor covering.
D. Underlayment compressive strength shall be 5500 psi at 28 days per ASTM C109/mod.
E. Underlayment shall be walkable after 2 hours and allow floor covering to be installed after 16 hours at 70 degrees F.
F. Manufacturer’s certification that the product is cement-based having an inorganic binder content which is 100% cement, to include Portland cement per ASTM C150: Standard Specification for Portland Cement and other specialty hydraulic cements.

1.4 DELIVERY, STORAGE AND HANDLING

A. Deliver products in their unopened packages and protect from extreme temperatures and moisture.

1.5 SITE CONDITIONS

ARDEX K 55 MICROTEC is a cementitious material. Observe the basic rules of concrete work. Do not install below 50 degrees surface temperature. Install quickly if floor is warm and follow warm weather precautions available from the ARDEX Technical Service Department.

PART 2 –PRODUCTS

2.1 MATERIALS

A. The cement-based self-leveling underlayment shall be ARDEX K 55 MICROTEC premium high flow self-leveling underlayment.
B. Primer for standard absorbent concrete shall be ARDEX P 51 Primer.
C. Primer for non-porous subfloors such as burnished concrete, non-water soluble adhesive residue on concrete and concrete treated with silicate compounds shall be ARDEX P 82 Ultra Prime.
D. Water shall be clean, potable, and sufficiently cool (not warmer than 70 degrees).

2.2 MIX DESIGNS

A. Standard mixing ratio: ARDEX K 55 MICROTEC is mixed in 2-bag batches at one time. Mix each bag of ARDEX K 55 (50 lb.) with 6 3/8 quarts (6 liters) of water. Product shall be mixed in an ARDEX T-10 mixing drum using an ARDEX T-1 mixing paddle and a ½” heavy-duty drill (12 mm, min. 650 rpm). Pour the water into the mixing drum first, and then add each bag of ARDEX K 55. Mix thoroughly for approximately 2-3 minutes to obtain a lump-free mixture.

PART 3 – EXECUTION

3.1 PREPARATION

A. All subfloors must be sound, solid, cleaned and primed:

1. All concrete substrates must be solid, thoroughly clean and free of oil, wax, grease, asphalt, latex, and gypsum compounds, curing compounds, sealers and any contaminant that might act as a bond breaker. If necessary, mechanically clean the floor down to sound, solid

concrete by shot blasting, scarifying or similar. Over-watered or otherwise weak concrete surfaces must be cleaned down to sound, solid concrete by mechanical methods. Sanding equipment is not effective method to remove curing and sealing compounds.

2. Acid etching, adhesive removers and sweeping compounds are not acceptable means for cleaning the substrate.
3. Curing compounds and non-water soluble adhesive residue: Refer to the ARDEX K 55 MICROTEC Technical Data Sheet at www.rdex.com for specific instructions on the installation of ARDEX K 55 over concrete treated with certain kinds of curing compounds or the installation of ARDEX K 55 with non-water-soluble adhesive residue on concrete.
4. Non-porous substrates, including burnished concrete must be clean, including the complete removal of existing waxes and sealers, dust, debris and other contaminant that may act as a bond breaker. Substrate preparation must be by mechanical means such as shot blasting.
5. More detailed information on substrate preparation is provided in the ARDEX Substrate Preparation Brochure available at www.ardex.com.

B. Joint Preparation
1. Saw Cuts and Control Joints – fill all non-moving joints with ARDEX FEATHER FINISH or ARDEX SD-P as required.

C. Priming
1. Primer for standard absorbent concrete subfloors: Mix ARDEX P 51 Primer 1:1 with water and apply evenly with a soft bristled push broom. Do not use paint rollers, mops or spray equipment. Do not leave any bare spots. Brush off puddles and excess primer. Allow to dry to a clear, thin film (min. 3 hours, max. 24 hours). Underlayment shall not be applied until the primer is dry.
2. Extremely absorbent concrete may require two applications of ARDEX P 51to avoid the formation of bubbles and pinholes in the ARDEX K 55 MICROTEC. Make an initial application of ARDEX P 51 mixed with 3 parts water by volume. Let dry thoroughly (1 to 3 hours) and install a second application of ARDEX P 51 mixed 1:1 with water.
3. Non-porous substrates must be primed with ARDEX P 82 Ultra Prime. ARDEX P 82 should be applied within 1 hour of mixing. Allow primer to dry to a thin, slightly tacky film (min. 3 hours, max. 24 hours).
4. ARDEX primers may require longer drying time with low temperatures and/or high ambient humidity. Do not install ARDEX K 55 MICROTEC before the primer has dried thoroughly.

3.2 APPLICATION OF UNDERLAYMENT

A. Installation
1. Pour or pump the ARDEX K 55 MICROTEC and spread in place with the ARDEX T-4 spreader. Immediately smooth the material with the ARDEX T-5 smoother. ARDEX K 55 has a flow time of 10 minutes at 70 degrees F.

3.3 PREPARATION FOR FLOORING INSTALLATION

A. ARDEX K 55 MICROTEC can be walked on 2-3 hours after installation. Floor coverings can be installed after 16 hours at 70 degrees F. Low substrate temperature and/or high ambient humidity will extend the drying time.

3.4 PROTECTION

A. Prior to the installation of the finish flooring, the surface of the underlayment should be protected from abuse by other trades by the use of plywood, masonite or other suitable protection course.