

#### **APPROPRIATE AREAS OF USE**

Check akdo.com for the appropriate areas of use for your stone selection. All stones are appropriate for interior use only.

# **SURFACE PREPARATION**

## **Substrate Preparation**

Appropriate substrates: concrete, masonry, existing well bonded ceramic tile, proper tiling underlayment over wood or steel framed construction.

# Natural Stone Substrate Deflection Requirements

All natural stone tile installations over framed construction require a substrate deflection rating of L/720. See the Tile Council of North America (TCNA) handbook for complete details regarding specific methods of preparing substrates for natural stone installation.

# **General Substrate Requirements**

All substrates must be flat, smooth and free of all surface contaminants that could act as a bond breaker. Overly absorbent as well as non-absorbent substrates require priming prior to installation. A surface flatness of 1/4" in 10' is required for all tile and stone installations per TCNA installation guidelines.

## **Crack Isolation**

All existing substrates cracks as well as any area susceptible to future surface cracking requires the installation of a crack isolation membrane meeting ANSI 118.12.

#### **Wet Areas**

Installation of a waterproofing membrane meeting ANSI 118.10 prior to installation is recommended for wet areas. Steam Rooms (continuous use) require a waterproofing and vapor retarding membrane with a perm rating of .05 perms or less.

## **Substrate Preparation Products**

- ARDEX Liquid BackerBoard® Self-Leveling Underlayment for Interior Wood and Concrete Subfloors
- ARDEX A 38<sup>™</sup> MIX Rapid-Set Pre Mixed
- ARDEX AM 100™ Rapid Set Pre-Tile Smoothing and Ramping Mortar
- ARDEX SKM™ Skimcoat Patch & Finishing Underlayment
- ARDEX 8+9™ Rapid Waterproofing and Crack Isolation Compound (Shower Walls)

  • ARDEX SK 175™ Waterproofing Mem-

brane and Vapor Retarder for Tile & Stone Installations (Steam Room Applications)

For complete information regarding substrate preparation requirements, material selection, required installation tools and application, visit www. ardexamericas.com and view the individual product technical data sheets or contact ARDEX technical service at (888) 512-7339

## **CUTTING & DRILLING**

#### **Stone & Metal Mosaics**

For mixed medium mosaics that combine stone with metal, we recommend the Husavarna Superlok Glass + Diamond blade.

To create holes, use a 3/8" drill with a water swivel attachment. Drill using drill bit made for metal, at a slow speed.

#### **SETTING**

Before installation, dry lay all material to inspect for quality and to determine the best blend of the material. All materials must be acclimated prior to installation, and air and surface temperature must be between 50 F and 80 F during installation. Be sure to clean tiles to remove any dust, dirt or packing contaminants prior to installation.

It is required to select a notch trowel size that will achieve the proper coverage rate and maintain a minimum bed thickness of 3/32". A minimum coverage of 95% is required. Per ANSI A108.5, apply mortar to the substrate using a notched trowel, and place tiles while material is wet and offers transfer. Once setting materials have adequately set (see product specifications for dry time) grouting can proceed. Before grouting, treat stone with a grout release product. When applying grout release to mixed medium mosaics that combines stone with other materials, thoroughly wipe off excess grout release from non-stone materials to avoid build up.

Only epoxy grout should be used with stone with metal mosaics. When the mosaics have plastic covering the metal, grout before removing the metal to avoid scratching Honor all expansion and moving joints in accordance with TCNA EJ 171. In addition, all perimeter and change of plane areas must be filled with an appropriate flexible sealant (ARDEX SX<sup>TM</sup> 100% Silicone Sealant for Tile and Stone Applications).

## Recommended Mortar and Adhesive

ARDEX N 23<sup>™</sup> Natural Stone Mortar

#### **Recommended Grout Release**

- FILA MP90 Eco Plus (for polished acid sensitive stones like marble, travertine, limestone, or for mixed medium mosaics that combines stone with other materials)
- FILA PRW200 (for natural finishes like honed, etched, sand blasted)

#### **Recommended Grout**

 ARDEX WA™ High Performance, 100% Solids Epoxy Grout and Adhesive

#### Caulkina

 ARDEX SX<sup>™</sup> 100% Silicone Sealant for Tile and Stone Applications

See complete setting material product technical information and installation instruction at ardexamericas.com.

For complete information regarding grout release products from FILA, visit filasolutions.com or call 844-FILA123

#### **SEALING**

Using a soft, clean cloth, apply a penetrating natural stone sealer. For wet areas, two coats of sealer is recommended. When applying sealer to mixed medium mosaics that combines stone with other materials, thoroughly wipe off excess from non-stone materials to avoid build up. Always follow the sealer manufacturer's guidelines.

#### **Recommended Sealant**

- FILA MP90 Eco Plus (natural look)
- FILA Stoneplus Eco (enhanced matte look)

For complete information regarding sealant products from FILA, visit filasolutions.com or call 844-FILA123

# **CARE & MAINTENANCE**

For day-to-day cleaning, apply a pH neutral

(quidelines continued on next page)



cleaner with a soft cloth. Remove the residue with a clean cloth and rinse thoroughly. For removing oxidation from brass, Brasso metal polisher is recommended. When using this polish, try to avoid contact with the stone, and remove any residue immediately before resealing the mosaic.

# Recommended Maintenance Cleaner

FILACLEANER

For complete information regarding care & maintenance products from FILA, visit filasolutions.com or call 844-FILA123

#### **CAUTION**

AKDO will not accept claims for any reason after the material has been cut, modified or installed.

You have chosen to install your own Stone and Metal product. Neither AKDO Intertrade, Inc. ("AKDO") nor the manufacturer shall have any responsibility for damage to property or for personal injury resulting from or related to the installation process. You have determined the appropriate product and measurements for your needs. Except as otherwise set forth in writing, AKDO disclaims any and all representations and warranties regarding the suitability of the product for its intended use or the accuracy of measurements.

Please read all instructions with care before beginning installation. These instructions are considered a guide, to help prevent problems caused by errors in installation. The instructions should not be considered complete. Many details of installation are learned through experience and general construction knowledge, which we cannot provide. The installation guidelines are intended to be recommendations only, and they are not intended to serve as a step-by-step installation checklist.

Selection of an experienced installer is your sole responsibility. You should consult with a professional installer to determine the best installation procedure for your project. Installers should refer to the most current industry standards and specifications for installation. You assume all risks of loss or damage in connection with the installation and use of the Stone Ethereal product.

# HINTS FOR INSTALLING DIFFERENT MOSAIC PATTERNS

#### **Butt Jointed Mosaics**

Before installation, use a razor to trim any excess glue or mesh from the outside edges of each mosaic sheet. Clean the material to remove any dust, dirt or packing materials.

Apply the first mosaic sheet to the substrate, gently and firmly pressing it into the mortar bed using the broad, flat side of a grout float. Make sure the mosaic stays level to avoid lippage in the installation.

For the remainder of the mosaic sheets use the "slide and drop" technique: Put the next sheet of mosaic on top of the installed piece, and slide it until it drops into place. This ensures the setting material does not get in between the two sheets. Firmly press the mosaic sheet into place, and "slide and drop" the next sheet of mosaic.

Choose a grout color that matches the color of the stone as closely as possible. It is recommended to test a few small pieces of mosaic with different grout options during the design process.

#### **Plastic Faced Mosaics**

Some mosaics will come with plastic covering the face of the tile. We recommend that the product be installed and the grout cured, before removing the plastic.