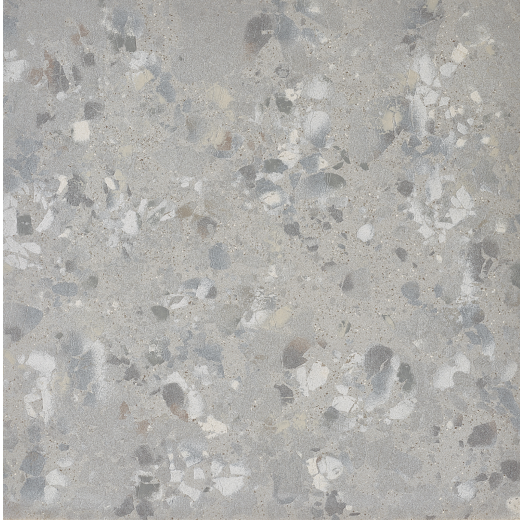




# ELM SURFACES

## Grey



|            |                                          |
|------------|------------------------------------------|
| Collection | Attitude                                 |
| Material   | Porcelain                                |
| Size       | 24x24, 24x48, 48x48                      |
| Thickness  | 10.5mm                                   |
| Finish     | Natural, Silk                            |
| Notes      | 2"x2" (12x12) Mosaic (Natural) available |

### Applications



Commercial Exterior & Interior Wall

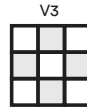


Residential Exterior & Interior Floor



Wet Areas and Outdoor

### Material Data



Color Variation

### Cleaning and Maintenance



Damp cloth and a gentle soap

### 3. TECHNICAL DATA

| Physical Properties                        | ASTM Test                            | Industry Standards                         | Results               |
|--------------------------------------------|--------------------------------------|--------------------------------------------|-----------------------|
| Water Absorption                           | C373                                 | Impervious <0.5%                           | ≤ 0.1%                |
| Thickness Dimension                        | C499                                 | Range ±0.04in Max.                         | ≤ ±0.04 in            |
| Facial Dimension                           | C499                                 | ±0.25%                                     | ≤ ±0.25%              |
| Warpage Average                            | C485                                 | ± 0.40% on any edge                        | ≤ ± 0.40%             |
| Warpage Average                            | C485                                 | ± 0.40% on diagonal                        | ≤ ± 0.40%             |
| Wedging Average                            | C502                                 | ± 0.25%                                    | ≤ ± 0.25%             |
| Bond Strength                              | C482                                 | ≥ 50 psi                                   | ≥ 200 psi             |
| Breaking Strength                          | C648                                 | ≥ 250 lbf                                  | ≥ 400 lbf             |
| Hardness (Mohs)                            | Scratch Test<br>(No regulated)       | Range 0 - 10                               | ≥ 7                   |
| Visible Abrasion Resistance for Glaze Tile | C1027                                | No requirement<br>Range 0 - 5              | Class 4               |
| Frost Resistance (Freeze/Thaw)             | C1026                                | No sample must show alterations to surface | No evidence of damage |
| Chemical Resistance                        | C650                                 | No Requirement<br>Range E - A              | Class A               |
| Stain Resistance                           | C1378                                | No Requirement<br>Range E - A              | Class A*              |
| Coefficient of Friction (Dynamic)          | DCOF Acutest <sup>sm</sup><br>(wet)  | ≥ 0.42                                     | ≥ 0.50*               |
| Aesthetic Classification                   | Visual Evaluation<br>Shade & Texture | No Requirement<br>Range V0 - V4            | V2                    |

\* All values given are for matte or honed material. No values are given for polished material ELM. does not recommend polished surfaces in area subject to exposure from grease, oil or water.

For level interior spaces to be walked upon when wet (see ANSI A137.1 section 6.2.2.1.10 - Section 9.6 for test procedure).

### 4. INSTALLATION

All installation work using ELM Surfaces tiles will conform to the standards set forth in the latest version of ANSI A108/118 and/or the TCNA Handbook for Ceramic Tile installations.

Installation or setting materials:

Movement joints shall be provided throughout the tile and work will conform to ANSI Specification A108.01-3.7; A108.02 - 4.4. and TCNA Details EJ171.

Setting materials used will conform to the ANSI 118.4 or greater and be recommended by the selected manufacturer for the installation & setting materials for ceramic or porcelain tile based on the application requirements.

### 5. WARRANTY

ELM Surfaces guarantees that its products will be free of manufacturing defects and they will meet or exceed the performance specifications set forth in ANSI 137.1.

### 6. MAINTENANCE

#### Care and Maintenance Recommendations Guide

Please refer to **ELM Surfaces Care and Maintenance Recommendations Guide** for all technical information as to the care of this collection.

### 7. TECHNICAL SERVICES

#### Technical Assistance

Guide Specifications, literature, MSDS, tile samples, details and installation procedures are all available for your use or libraries.

Please contact your nearest ELM representative for catalogs, physical samples, or architectural binders.