



 **ELM SURFACES**

Astro



Astro Tender Gray 12"x12" Mosaic

Astro II is a sober unglazed porcelain mosaic. Available in 4 neutral tones, which can be used in both commercial and residential projects.

Unglazed Porcelain

 12"x12" Mosaic



Astro Snow White & Black 12"x12" Mosaic



Astro Tender Gray 12"x12" Mosaic

Astro
Unglazed Porcelain Mosaics

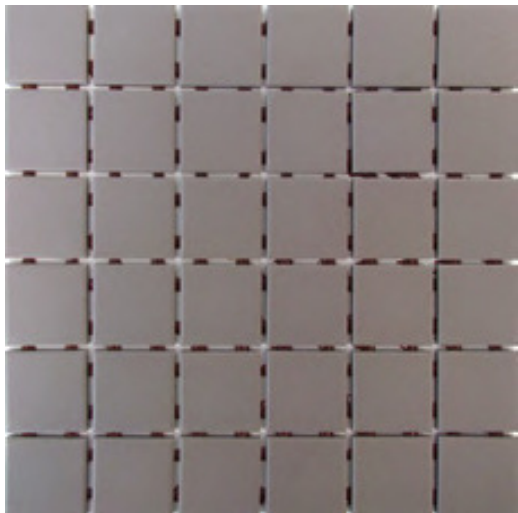
6 mm |  | 12"x12"
30x30 cm | DCOF ≥ 0.42



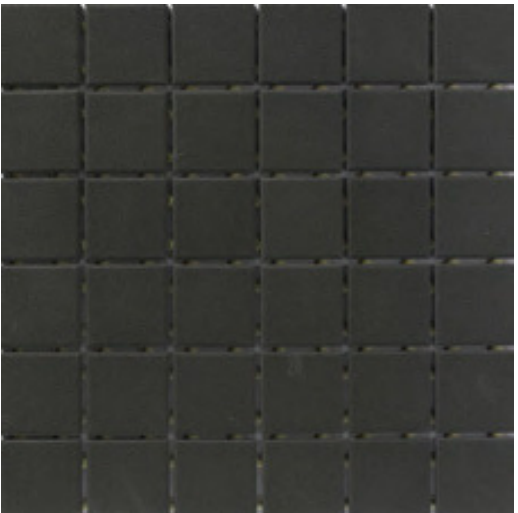
White
Squares 12"x12" Mosaic



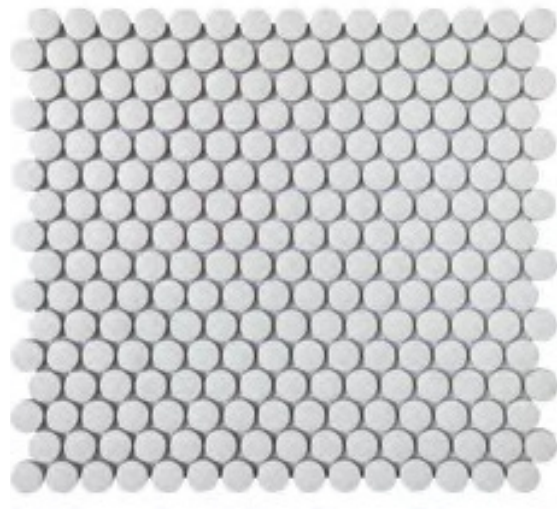
Tender Gray
Squares 12"x12" Mosaic



Taupe
Squares 12"x12" Mosaic



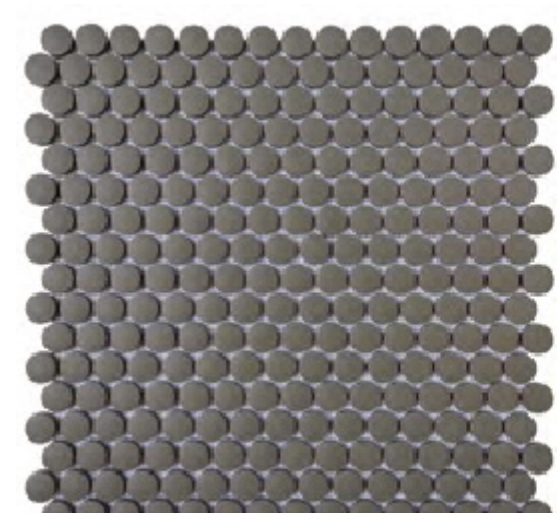
Black
Squares 12"x12" Mosaic



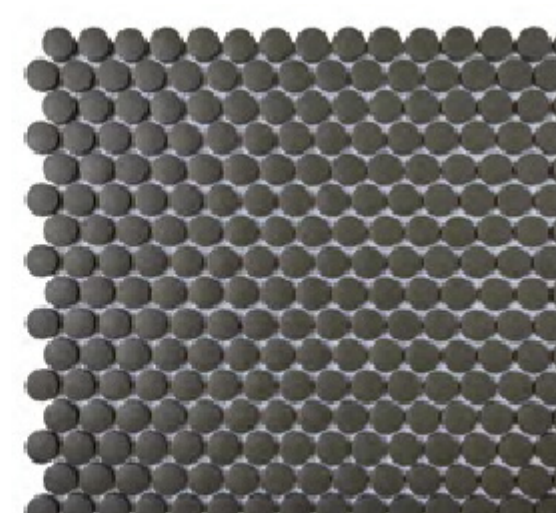
White[®]
Penny Round 12"x12" Mosaic



Tender Gray[®]
Penny Round 12"x12" Mosaic

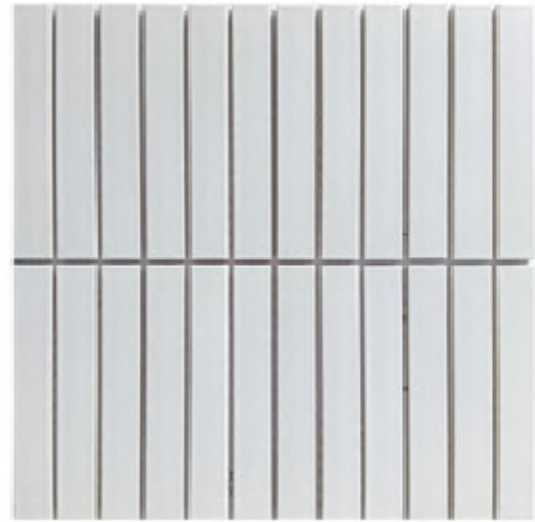


Taupe[®]
Penny Round 12"x12" Mosaic



Black[®]
Penny Round 12"x12" Mosaic

Unglazed Porcelain Mosaics

[illegible]

Black (N)
Stacked 12"x12" Mosaic

CHARACTERISTICS	STANDARD	DECLARED ASTM
Water Absorption	C373	<=0.5%
Break Strength	C648	>=350
Scratch Hardness	MOH's Scale	6
Chemical Resistance	C650	Unaffected
Frost Resistance	CI026	Resistant
Group	See FAQ's	4
Deep Abrasion - Unglazed Tiles	CI243	-
PEI - Glazed Tiles	CI027	-
Minimum Bond Strength (PSI)	C482	165
Dynamic Coefficient of Friction (DCOF)	AI37.1	>=0.42
Shade and Texture Rating	CTDA "V"	VI
Facial Dimensions	C499	Pass
Range of Thickness	C499	Pass
Warpage	C485	Pass
Wedging	C502	Pass

Size	SF per carton	PC per carton	BX per pallet
<i>Astro Squares 12"x12" Mosaic</i>	<i>20.16</i>	<i>20</i>	<i>54</i>
<i>Astro Penny Round 12"x12" Mosaic</i>	<i>20.16</i>	<i>20</i>	<i>54</i>
<i>Astro Stacked 12"x12" Mosaic</i>	<i>20.16</i>	<i>20</i>	<i>54</i>

Due to the handcrafted-inspired nature of this mosaic, slight variations in piece positioning and sheet alignment may occur. These minor variations are inherent to the product's visual character and may be more noticeable prior to installation. A minimum grout joint of 1/8" is recommended to help accommodate these variations and achieve the intended finished appearance. Installer review and approval of the material prior to installation is recommended.

Porcelain Mosaics – Pressed



Characteristics:

- Manufactured by pressing clay and other materials into molds.
- Often have rounded or cushioned edges.
- Slightly less precise than cut porcelain.



Considerations:

- Surface: May have more texture; good for slip resistance.
- Dimensional Accuracy: May show minor variation; use spacers carefully.
- Design Options: Widely available; cost-effective.



Installation Tips:

- Use a high-quality thinset mortar (white for light colors).
- Be sure to level substrate; pressed mosaics can amplify uneven surfaces.
- Choose sanded grout for joints over 1/8".

Unglazed Mosaics

Additional Installation Notes



NATURAL VARIATION

- As with all fired ceramic and porcelain products, shade, texture, and graphic variation may occur.
- The tile supplied for the final installation may vary from samples, displays, or marketing materials.
- Final approval should be based on the actual material prior to installation.



PRE-INSTALLATION INSPECTION

- All materials must be inspected before installation.
- Claims related to shade, size, surface finish, or visible defects must be addressed prior to installation.
- Installation constitutes acceptance of the product.



STANDARDS COMPLIANCE

- This product is manufactured in accordance with applicable ANSI A137.1 standards.



BLENDING & LAYOUT

Unglazed mosaics may feature natural variation in color, surface texture, and visual movement:

- To achieve the best overall appearance, tile should be selected from multiple cartons.
- Layout should be reviewed before installation.



GROUTING RECOMMENDATIONS

Use caution with dark or highly pigmented grout:

- Apply grout release or penetrating sealer before grouting
- Helps prevent staining and eases cleaning
- Always test grout, sealer, and cleaning methods in a small area first



SETTING MATERIALS

Use of a high-quality latex-modified or polymer-modified thin-set mortar suitable for porcelain or ceramic tile is recommended. Always follow the setting material manufacturer's instructions for:

- Mixing
- Application
- Coverage
- Curing



SLIP & SAFETY NOTICE

- Not recommended for use on ramps.
- Conditions such as water, oil, grease, improper drainage, or certain footwear may create slippery surfaces.

Floor applications expected to be exposed to these conditions require careful product selection, proper maintenance, and adherence to applicable slip-resistance requirements.



ATTENTION

For all installations, follow current TCNA guidelines, applicable ANSI specifications, and the recommendations of the setting material, grout, and sealer manufacturers.