

Wet DCOF/Safety Considerations

DCOF - ANSI A326.3

ANSI A326.3 is the standard for accurately determining the dynamic coefficient of friction (DCOF) on a tile surface. Developed by the Tile Council of North America (TCNA), ANSI A326.3 is a repeatable, reproducible method of measuring DCOF. This method uses a specifically engineered device to perform the required testing, ensuring the most precise results. The ANSI A326.3 is included in the latest version of ANSI A137.1 Specifications for Ceramic Tile.

SAFETY CONSIDERATIONS FOR TILE

- In areas where standing water may occur, selected tile should have an elevated DCOF rating. Please refer to the “Tile Performance Data” page for additional information.
- Polished tile should not be used in areas where standing water, oil, or grease may be present due to the tile’s low coefficient of friction.
- Pool deck tiles, whether interior or exterior, should have a surface texture that provides an elevated DCOF rating. Please refer to the “Tile Performance Data” page for additional information.
- Ramps or inclines should have an increased DCOF.
- There are no tiles that are slip proof, only slip resistant.



The Tile Council of North America (TCNA), established in 1945, has a leadership role in promoting the use of ceramic tile and in developing North American and international industry standards. To learn more about TCNA, please go to tcnatile.com.

Product	Finish	Wet DCOF Range
Empire	PO	0.22 – 0.32
Cross-Colors® Mingles	PO	0.31 – 0.41
Physics	PO	0.31 – 0.41
Retro Active 2.0	PO	0.31 – 0.41
State of Grace	SAT	0.31 – 0.41
Alaska	UPS	0.42 – 0.52
Altered State	UPS	0.42 – 0.52
Argent	HON	0.42 – 0.52
Bluestone	HON	0.42 – 0.52
Classic Grooves	UPS	0.42 – 0.52
EcoCycle Americana®	UPS	0.42 – 0.52
Empire	UP	0.42 – 0.52
Familiar Territory™	SPO	0.42 – 0.52
Java Joint	UPS	0.42 – 0.52
Jazz Age™	UP	0.42 – 0.52
Moonstruck	HON	0.42 – 0.52
Nest®	UPS	0.42 – 0.52
Notorious®	HON	0.42 – 0.52
Owen Stone	LTR	0.42 – 0.52
Reformation™	UPS	0.42 – 0.52
Relax™	UP	0.42 – 0.52
Retro Active 2.0	PTN	0.42 – 0.52
Shades 2.0	SPO	0.42 – 0.52
State of Grace	UPS	0.42 – 0.52
Story Teller™	UPS	0.42 – 0.52
Argent	UPS	0.50 – 0.60
Basalt	UPS	0.50 – 0.60
Bluestone	UPS	0.50 – 0.60
Color Blox® 2.0/Color Blox® 2.0 Mosaic	UPS	0.50 – 0.60
Cross-Colors® Mingles	UPS	0.50 – 0.60
Familiar Territory™	UPS	0.50 – 0.60
Garden	TX	0.50 – 0.60
Gotham®	UPS	0.50 – 0.60
Moonstruck	UPS	0.50 – 0.60
Notorious®	UPS	0.50 – 0.60
Physics	UPS	0.50 – 0.60
Portugal	UPS	0.50 – 0.60
Ready to Wear	UPS	0.50 – 0.60
Retro Active 2.0	UPS	0.50 – 0.60
Shades 2.0	UPS	0.50 – 0.60
SpeakEasy	UPS	0.50 – 0.60
Main Street	UPS	0.58 – 0.68
Owen Stone	EXT	0.60 – 0.70
Portugal	EXT	0.60 – 0.70

The industry standard for tile suitable for level interior spaces expected to be walked on when wet with water is a wet DCOF value of 0.42 or greater. A wet DCOF of less than 0.42 shall only be installed when the surface will be kept dry when walked upon and proper safety procedures will be applied when cleaning the tiles.

Application Areas

Porcelain Stone	Page	Finish	Interior Floors (dry)	Interior Walls (wet/dry)	Exterior Walls	Interior Floors (Standing water/shower floors)	Exterior/Paving	Pool/Fountain Full Lining**	Water Line Pool/Fountains	ANSI A326.3 Reference Category (Field Tile)	ANSI A326.3 Reference Category (Mosaic*)
Alaska	23	UPS	✓	✓	✓	Mosaic Only*		✓	✓	IW	IW+
Altered State	27	UPS	✓	✓	✓			✓	✓	IW	IW
Argent	29	UPS	✓	✓	✓			✓	✓	IW	
		HON	✓	✓	✓			✓	✓	IW	
Basalt	33	UPS	✓	✓	✓			✓	✓	IW	
Bluestone	35	UPS	✓	✓	✓	Mosaic Only*		✓	✓	IW	IW+
		HON	✓	✓	✓			✓	✓	IW	IW
Classic Grooves	23	UPS	✓	✓	✓	Mosaic Only*		✓	✓	IW	IW+
Color Blox® 2.0 / Color Blox® 2.0 Mosaics	37	UPS	✓	✓	✓	Mosaic Only*		✓	✓	IW	IW+
Cross-Colors® Mingles	41	PO	✓	✓	✓			✓	✓	ID	
		UPS	✓	✓	✓			✓	✓	IW	
Cross-Slate®	43	CS	✓	✓	✓	✓	✓	✓	✓	EW	
Cross-Tread®	43	CTS	✓	✓	✓	✓	✓			O/G	
EcoCycle Americana®	45	UPS	✓	✓	✓			✓	✓	IW	
Empire	47	PO	✓	✓	✓			✓	✓	ID	
		UP	✓	✓	✓	Mosaic Only*		✓	✓	IW	IW+
Familiar Territory	49	UPS	✓	✓	✓	Mosaic Only*		✓	✓	IW	IW+
		SPO	✓	✓	✓			✓	✓	IW	
Garden	51	TX	✓	✓	✓	✓	✓	✓	✓	EW	
Gotham®	53	UPS	✓	✓	✓			✓	✓	IW	
Java Joint	55	UPS	✓	✓	✓	Mosaic Only*		✓	✓	IW	IW+
Jazz Age	57	UP	✓	✓	✓	Mosaic Only*		✓	✓	IW	IW+
Main Street	59	UPS	✓	✓	✓	Mosaic Only*		✓	✓	IW	IW+
Moonstruck	61	UPS	✓	✓	✓			✓	✓	IW	
		HON	✓	✓	✓			✓	✓	IW	
Nest®	67	UPS	✓	✓	✓	Mosaic Only*		✓	✓	IW	IW+
Notorious®	71	UPS	✓	✓	✓	Mosaic Only*		✓	✓	IW	IW+
		HON	✓	✓	✓			✓	✓	IW	
Owen Stone		LTR	✓	✓	✓			✓	✓	IW	IW
		EXT	✓	✓	✓	✓	✓	✓	✓	EW	
Physics	73	UPS	✓	✓	✓	Mosaic Only*		✓	✓	IW	IW+
		PO	✓	✓	✓			✓	✓	ID	
Portugal	75	UPS	✓	✓	✓	Mosaic Only*		✓	✓	IW	IW+
		EXT	✓	✓	✓	✓	✓	✓	✓	EW	
Ready to Wear	79	UPS	✓	✓	✓			✓	✓	IW	
Reformation	81	UPS	✓	✓	✓	Mosaic Only*		✓	✓	IW	IW+
Relax	85	UP	✓	✓	✓	Mosaic Only*		✓	✓	IW	IW+
Retro Active 2.0	87	PO	✓	✓	✓			✓	✓	ID	
		UPS	✓	✓	✓	Mosaic Only*		✓	✓	IW	IW+
		PTN	✓	✓	✓			✓	✓	IW	
Shades 2.0	91	UPS	✓	✓	✓	Mosaic Only*		✓	✓	IW	IW+
		SPO	✓	✓	✓			✓	✓	IW	IW
		PTN	✓	✓	✓			✓	✓	IW	
SpeakEasy	95	UPS	✓	✓	✓			✓	✓	IW	
State of Grace	97	UPS	✓	✓	✓	Mosaic Only*		✓	✓	IW	IW+
		SAT	✓	✓	✓			✓	✓	IW	
Story Teller	99	UPS	✓	✓	✓	Mosaic Only*		✓	✓	IW	IW+
Glass & Wall Tile											
Color By Numbers®	127	Satin/Gloss		✓							
Convergence	113			✓							
Cursive	131	Gloss		✓							
Ebb & Flow	115			✓	Covered Only						
Glass Blox®	117			✓	Covered Only				Mosaic Only		
Groove Glass	121			✓	Covered Only				Mosaic Only		
Handwritten	133			✓							
Sideview Glass	123	Matte/Polished		✓							
Simpatico	135	Satin/Gloss		✓							
Swatches	137	Satin/Gloss		✓							

* 4" or less in both length and width, UPS or UP mosaics

** Excludes mesh mounted mosaics. Crossville recommends face mounted or edge mounted mosaics for fully submerged applications. Contact your Crossville sales representative for more information.

NOTE: Trim applications will differ from field tile applications for the same series.

ANSI A326.3 Product Use Classifications

REFERENCE CATEGORY DESCRIPTIONS

Interior Dry (ID)

Crossville products with this classification have a dry DCOF value of 0.42 or greater and are intended to be kept dry, level, and free of contaminants when in use. Possible applications may include hotel lobbies, office buildings, automotive showrooms, and home interiors without water sources.

Interior Wet (IW)

Crossville products with this classification have a wet DCOF value of 0.42 or greater and are intended to be kept dry, but may intermittently be exposed to water, liquids and other contaminants. Possible applications may include entry foyers, public restrooms (without showers), grocery stores, restaurant dining areas, or home kitchens and baths, as well as the applications listed under Interior Dry.

Interior Wet Plus (IW+)

Crossville products with this classification may be suitable for interior areas that are frequently subjected to standing water. These products feature one or more characteristics that promote improved traction and drainage, such as an elevated wet DCOF value, enhanced texture, and/or frequent grout joints. Possible applications may include shower floors, interior pool decks, and locker rooms, as well as the applications listed under Interior Dry and Interior Wet.

Exterior Wet (EW)

Crossville products with this classification typically feature an elevated wet DCOF value along with an enhanced or exaggerated surface texture for improved traction. As a result, such products may be suitable for level outdoor areas that may be walked on when wet. Possible applications may include patios, walkways, and pool decks. These products may also be suitable for the applications listed under Interior Dry, Interior Wet, and Interior Wet Plus, but may not be desirable in certain areas due to their surface texture.

Oils/Greases (O/G)

Crossville products with this classification feature an elevated wet DCOF value and enhanced surface texture for improved traction. Typically used in commercial kitchens, these products may also be suitable for the applications listed under Interior Dry, Interior Wet, Interior Wet Plus, and Exterior Wet, but may not be desirable in certain areas due to their surface texture.

Please note that the classifications provided above are intended to be general in nature and should not be solely relied upon in tile selection. A variety of factors must be considered when determining the suitability of any tile for its intended application. Such considerations include, but are not limited to, type of use, traffic, expected contaminants, expected maintenance, and expected wear. In particular, tile selection for wet applications requires careful consideration of the unique nature of the design and installation. For reference, the industry standard for tile suitable for level interior spaces expected to be walked on when wet with water is a wet dynamic coefficient of friction (DCOF) value of 0.42 or greater. However, hard surface flooring materials with a wet DCOF value of 0.42 or greater are not necessarily suitable for all projects. It is the sole responsibility of the end user to consult with a design professional to determine and select the most suitable flooring for a particular project.