

ANSI A326.3

American National Standard Test Method for Measuring Dynamic Coefficient of Friction of Hard Surface Materials—2021

Table 1: Product Use Classification

Classification	Reference Category	Criteria
Interior, Dry	ID	≥ 0.42 dry DCOF* (per Section 10.1)
Interior, Wet	IW	≥ 0.42 wet DCOF* (per Section 9.1) or Manufacturer-Declared
Interior, Wet Plus	IW+	Manufacturer-Declared
Exterior, Wet	EW	Manufacturer-Declared
Oils/Greases	O/G	Manufacturer-Declared

3.0 Specification

3.1 DCOF \geq 0.42*: Unless otherwise declared by the manufacturer, hard surface flooring materials suitable for level² interior spaces expected to be walked on when wet with water shall have a measured wet DCOF value of 0.42* or greater when tested using SBR testfoot material and SLS solution as per this standard. However, hard surface flooring materials with a measured wet DCOF value of 0.42* or greater are not necessarily suitable for all projects. The specifier shall determine materials appropriate for specific project conditions, considering by way of example, but not in limitation, type of use, traffic, expected contaminants, expected maintenance, expected wear,³ and manufacturers' guidelines and recommendations.

3.2 DCOF $<$ 0.42*: When tested using SBR testfoot material and SLS solution as per the procedure in this standard, hard surface flooring materials with a measured wet DCOF value of less than 0.42* (including by way of example, but not in limitation, polished surfaces), unless otherwise declared by the manufacturer, shall only be installed when the surface will be kept dry when walked upon and proper safety procedures will be followed when cleaning the hard surface flooring materials. Hard surface flooring not intended to be walked upon when wet shall have a dry DCOF value of 0.42* or greater when tested per Section 10.0 of this standard.

3.4 Manufacturer-Declared Product Use Classification: Manufacturer shall declare product use classification based on manufacturing parameters, internal quality control criteria, their experience with similar surfaces, and the criteria in this standard for all surfaces classified under Sections 4.1.3, 4.1.4, and 4.1.5, mosaic surfaces, and flooring where surface structure (e.g. three-dimensionally patterned or profiled surfaces) results in misleading DCOF measurements due to test device constraints. Optionally, surfaces classified under Section 4.1.2 shall also be permitted to be manufacturer-declared. Hard surface flooring manufacturer shall define internal product selection criteria (for example, but not in limitation, DCOF limit values established using this test method or other test methods, internal reference standards and practices, and/or the presence of abrasive grain and/or surface structure) for each product where the manufacturer-declared product use classification is not based on DCOF criteria developed per this standard. Regardless of declared product use classification, specifier shall determine materials appropriate for specific project conditions, considering by way of example, but not in limitation, type of use, traffic, expected contaminants, expected maintenance, expected wear,³ and manufacturers' guidelines and recommendations.

INFORMATIVE NOTE: Hard surface flooring materials with a measured wet DCOF value less than 0.42* are often used in areas such as shopping malls (outside the food court), hotel lobbies, office buildings, etc. where a certain appearance (e.g. glossy) and ease of cleaning are highly desired and measures are in place to keep the floor dry when walked upon.

INFORMATIVE NOTE: Normative measured DCOF limit values are not provided in this standard for exterior applications, interior ramps and inclines, pool decks, shower floors, or flooring that is contaminated with material other than water or where minimal or no footwear is used.

For exterior applications, the suitability of the installed hard surface flooring materials depends significantly on drainage of the assembly, physical structure of the hard surface flooring, expected footwear, intended use, and the variety of contaminants present, in addition to other factors already discussed. Accordingly, a single DCOF limit value for exterior applications is not provided.

For interior ramps and inclines, the suitability of the installed hard surface flooring materials depends significantly on the degree of incline, the nature of any non-pedestrian use, and the physical structure of the hard surface flooring, in addition to other factors already discussed. Accordingly, a single DCOF limit value for ramps and inclines is not provided.

For pool decks, the suitability of the installed hard surface flooring materials depends significantly on drainage of the assembly, physical structure of the hard surface flooring, and the variety of contaminants present, in addition to other factors already discussed. Accordingly, a single DCOF limit value for pool decks is not provided.

Table 1: Product Use Classification

Classification	Reference Category	Criteria
Interior, Dry	ID	≥ 0.42 dry DCOF* (per Section 10.1)
Interior, Wet	IW	≥ 0.42 wet DCOF* (per Section 9.1) or Manufacturer-Declared
Interior, Wet Plus	IW+	Manufacturer-Declared
Exterior, Wet	EW	Manufacturer-Declared
Oils/Greases	O/G	Manufacturer-Declared

4.1 Product Use Classification: Hard surface flooring products shall be classified into one or more of the product use categories provided in Table 1 and described in Sections 4.1.1 through 4.1.5.

4.1.1 Interior, Dry: Product shall be kept dry, level, and free of contaminants when in use.

INFORMATIVE NOTE:

Possible Areas of Use: Subject to determination by specifier and the criteria in this standard, may include, but are not limited to, indoor shopping malls (excepting food courts), hotel lobbies, office buildings, showrooms, home interiors without water sources and other level areas where surface will be kept dry and contaminant free when walked upon and proper safety procedures will be followed when cleaning the hard surface flooring materials. Walk-off mats may be necessary for use in entrance areas of the possible areas of use where water or other contaminants would otherwise be occasionally or consistently transported onto the flooring surface. Hard surface flooring not intended to be walked upon when wet shall have a dry DCOF value of 0.42 or greater when tested per Section 10.0 of this standard.*

4.1.2 Interior, Wet: See Section 3.1. Product shall have a minimum measured wet DCOF value of 0.42* or greater when tested per this standard or be manufacturer-declared for this category based on manufacturing parameters, internal quality control criteria, and manufacturer experience with similar surfaces (see Section 3.4). Attributes to consider for products manufacturer-declared for this category include, but are not limited to, product size, texture, structure, and drainage.

INFORMATIVE NOTE:

Possible Areas of Use: Subject to determination by specifier and the criteria in this standard, may include, but are not limited to, entry foyers, public restrooms (without showers), grocery stores, "front of the house" in fine and casual dining restaurants with a closed kitchen, home interiors including bathrooms and kitchens, and other areas where floors may be walked upon when wet if level, clean, maintained, and free of standing water or other contaminants.

4.1.3 Interior, Wet Plus: See Section 3.4. Product shall be manufacturer-declared for this category based on manufacturing parameters, internal quality control criteria, and manufacturer experience with similar surfaces. Attributes to consider include, but are not limited to, product size, texture, structure, and drainage. Products meeting Interior, Wet Plus criteria may require frequent maintenance to keep clean.

INFORMATIVE NOTE:

Possible Areas of Use: Subject to determination by specifier and the criteria in this standard, may

include, but are not limited to, public showers, interior pool decks, locker rooms, covered exterior areas, steam rooms, “front of the house” applications in restaurants with an open kitchen, and in “front of the house” applications in quick service, fast-casual, and self-service restaurants, food areas in gas stations, and other similar areas where floors may be walked upon when wet if clean, maintained, and free of standing water or other contaminants.

4.1.4 Exterior, Wet: See Section 3.4. Product shall be manufacturer-declared for this category based on manufacturing parameters, internal quality control criteria, and manufacturer experience with similar surfaces. Attributes to consider include, but are not limited to, product size, texture, structure, and additionally in wet applications, drainage. Products meeting Exterior, Wet criteria may require frequent maintenance to keep clean.

INFORMATIVE NOTE:

Possible Areas of Use: Subject to determination by specifier and the criteria in this standard, may include, but are not limited to, level outdoor living spaces including pool decks, walkways, patios, and sidewalks, where such floors may be walked upon when wet (excluding ice or snow) if level, clean, maintained, and free of standing water or other contaminants.

4.1.5 Oils/Greases: See Section 3.4. Product shall be manufacturer-declared for this category where oil, grease, and/or fats may be present, based on manufacturing parameters, internal quality control criteria, and manufacturer experience with similar surfaces. Attributes to consider include, but are not limited to, product size, texture, structure, and drainage. Products meeting Oils/Greases criteria may require frequent maintenance to keep clean.

INFORMATIVE NOTE:

Possible Areas of Use: Subject to determination by specifier and the criteria in this standard, may include, but are not limited to, level areas regularly exposed to automotive fluids, “back of the house” fast food or family style restaurants, food preparation areas with grills or deep-fry equipment, and any area where oil, grease, and/or fats may be present so long as such floors are level, regularly cleaned, maintained, and free of standing water and contaminant build-up.

TO BE VERY CAREFUL WITH THIS WORDING IN ADDITIONAL INFORMATIVE NOTES:

4.1.3 Interior, Wet Plus:

INFORMATIVE NOTE: *In the absence of superseding manufacturer-declared product use classification, excepting where measured DCOF is lower due to the impact of structure on the DCOF measurement, it is generally accepted that hard surface flooring in this category should have at least a minimum wet DCOF value of 0.50*, with factors other than wet DCOF also taken into consideration. Such factors include, but are not limited to, expected contaminants, drainage, surface structure, effect of structure on the DCOF measurement, number of grout joints (see Informative Note in Section 9.1.7), traction-enhancing features, and intended use, in addition to the other criteria in this standard. As the suitability of the installed hard surface flooring depends significantly on such factors, a single normative DCOF limit value is not provided.*

4.1.4 Exterior, Wet:

INFORMATIVE NOTE: *In the absence of superseding manufacturer-declared product use classification, excepting where measured DCOF is lower due to the impact of structure on the DCOF measurement, it is generally accepted that hard surface flooring in this category should have at least a minimum wet DCOF value of 0.55*, with factors other than wet DCOF also taken into consideration. Such factors include, but are not limited to, expected contaminants, drainage, surface structure, effect of structure on the DCOF measurement, number of grout joints (see Informative Note in Section 9.1.7), traction-enhancing features, and intended use, in addition to the other criteria in this standard. As the suitability of the installed hard surface flooring depends significantly on such factors, a single normative DCOF limit value is not provided.*

4.1.5 Oils/Greases:

INFORMATIVE NOTE: *In the absence of superseding manufacturer-declared product use classification, excepting where measured DCOF is lower due to the impact of structure on the DCOF measurement, it is generally accepted that hard surface flooring in this category should have at least a minimum wet DCOF value of 0.55*, with factors other than wet DCOF also taken into consideration. Such factors include, but are not limited to, expected contaminants, drainage, surface structure, effect of structure on the DCOF measurement, number of grout joints (see Informative Note in Section 9.1.7), traction-enhancing features, and intended use, in addition to the other criteria in this standard. As the suitability of the installed hard surface flooring depends significantly on such factors, a single normative DCOF limit value is not provided.*