

Technical Bulletin #9 Epoxy Coatings Slip Resistant Properties

The skid resistant properties of floor surfaces are important for safety purposes and often must meet minimum standards. These standards are measured using one of two methods: ASTM F-489 Static Coefficient of Friction of Shoe Sole and Heel Materials as Measured by the James Machine or ASTM F-609 Static Slip Resistance of Footwear Materials as Measured by Horizontal Pull Slip Meter. ASTM F-609 is commonly used for onsite testing while ASTM F-489 is confined to the laboratory.

Epoxy coatings are often used as finish coats and sealers for a variety of resinous floor systems. The addition of a slip resistant additive or “grit” to the resin system provides a non-skid profile to make the resinous system meet the required slip resistance. Slip resistant additives range from fine to coarse depending on the degree of slip resistance needed, the desired finished appearance, and the maintenance or cleanability of the finished system.

Key #520 100% Solids Epoxy Coating is used as a medium to high build coating and as a finish coat in many of Key Resin Company’s Industrial Flooring Systems. Key #520 has excellent wearing properties and exhibits excellent skid resistant properties when using a variety of slip resistant additives. Key #520 with fine non-skid grit offers the best combination of slip resistance, appearance and cleanability. Typical properties of Key #520 with fine non-skid grit include:

Coefficient of Friction-Rubber Shoe Surface per ASTM F-489	
Static Friction w/Saltwater Solution on Surface	0.90 - 0.97
Static Friction w/Oil on Surface	0.72 - 0.75
Sliding Friction w/Saltwater Solution on Surface	0.87 - 0.90

REV 08/30/21 v1.0