

*Floor Grain*TM

SHP4080-1

NON-SLIP ADDITIVE
Professional Grade

Key Benefits

- Non-Slip effect
- Anti-Noise effect
that eliminates tire squeal
- Excellent abrasion resistance
& Extended coating life
- Matte finish & Easy to clean
- Cost saving

Product Description

Floor Grain™ SHP4080-1

thermoplastic high molecular weight polymer powders are designed for use as an additive in **paints and coatings** for high performance flooring applications.

This unique very high molecular weight polymer powder material exhibits exceptional mechanical toughness & chemical resistance.

Floor Grain™ SHP4080-1

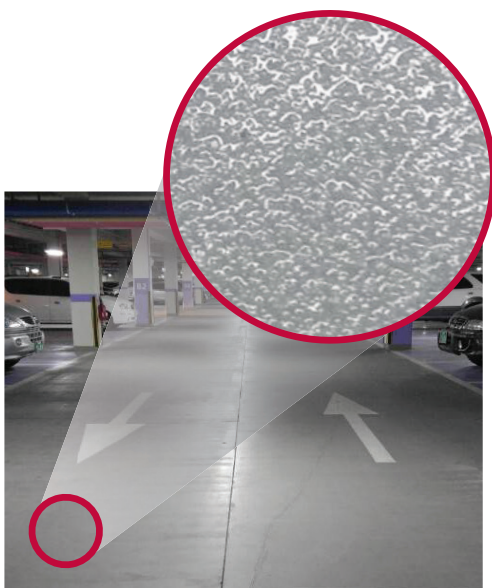
can be used in a wide variety of painting system such as epoxy, polyurethane, acrylic and water borne paint formulations.

Features

Floor Grain™ SHP4080-1 offers a unique combination of properties :

- Uniform surface finish
- Excellent non-slip & anti-noise effect
- No fall out of the powder from paint
- Durable surface (abrasion and impact resistance)
- Semi-transparent clear white that can be used in all paint colors
- Easy to clean
- Ease of application by roller, brush, or spray gun
- No extra steps for application
- Extended coating life
- Cost saving compared to other additives or techniques

Floor Grain™ SHP4080-1 polymeric powder additives can be easily dispersed with normal standard paint mixing equipment. There is little or no change in viscosity and no reaction with paint and coating formulations.



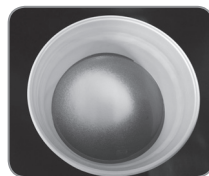
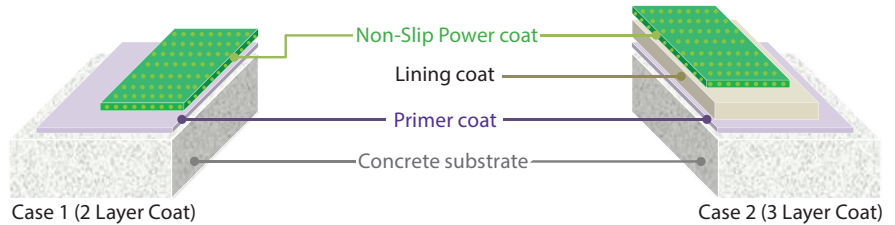


Broad & Various Applications

- Parking garages & heavy duty industrial flooring
- Outdoor & Indoor flooring paint
- Swimming pool & bathroom's floor
- Kitchen flooring
- Gas Station Flooring
- Marine & ship's floor, stairs and deck



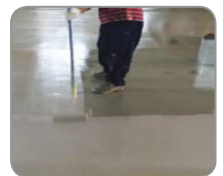
Simple 2~3 Layers Application Method



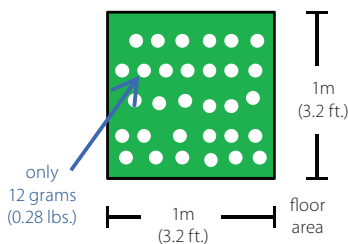
Step 1. Adding
Add SHP4080-1 powder into paint (epoxy, urethane etc.) before mixing with hardener



Step 2. Mixing
Just needs stirring



Step 3. Painting
Standard equipment can be used for rolling, brushing or spraying



Coverage

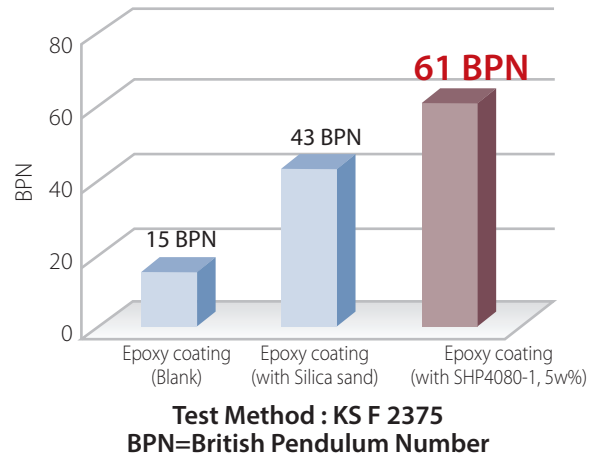
Just add 5~7 % by weight of SHP4080-1 into the paint and mix.

Coverage Example: 5% by weight of SHP4080-1

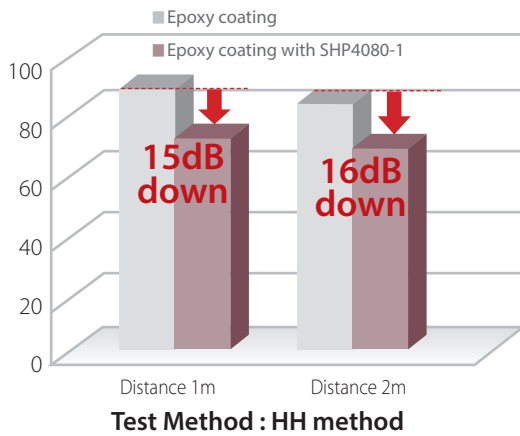
1 kg (2.2 lbs.) of SHP4080-1 in 20 kg (44 lbs.) of a typical paint formulation covers 80 m² (861 ft²)



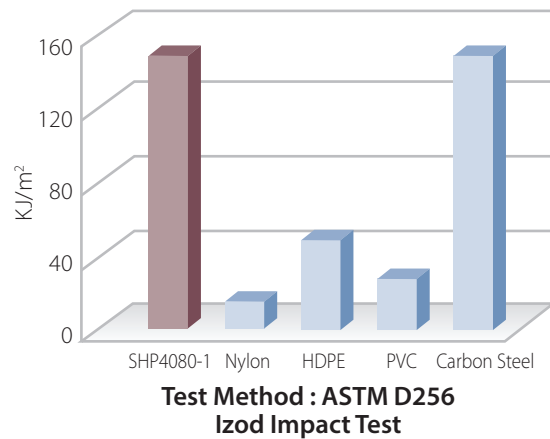
Slip Resistance on Epoxy Coating Floor



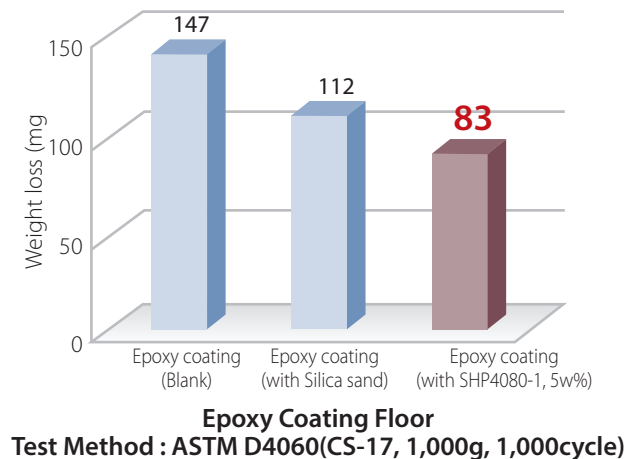
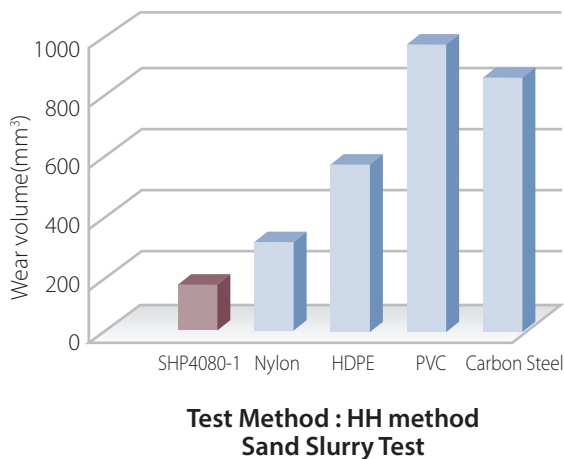
Anti-Noise Effect



Impact Resistance

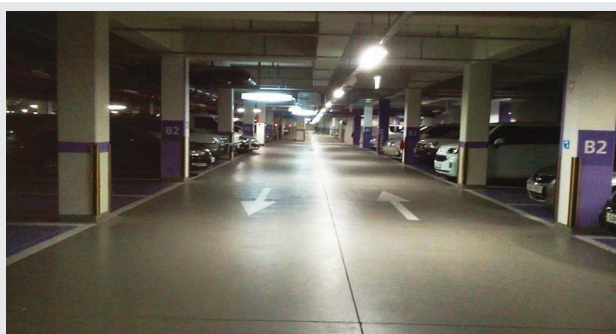


Abrasion Resistance of SHP4080-1

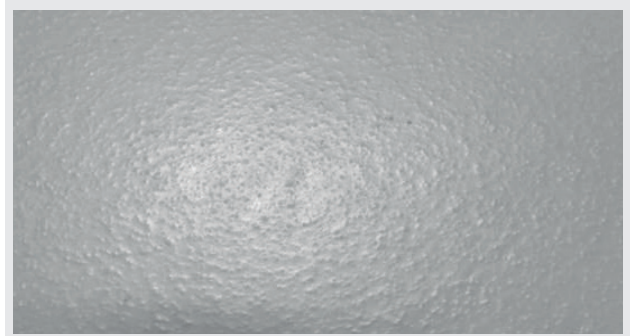
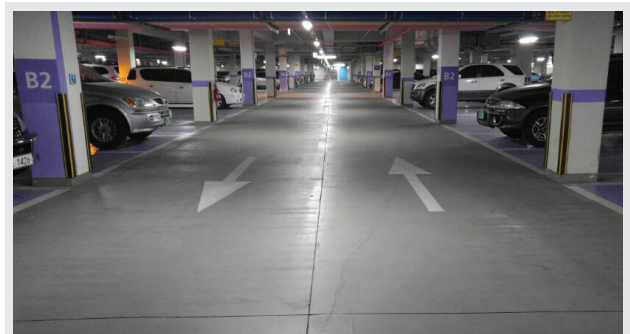


Extended Coating Life

Just after coated (June. 2012)



4 years after coated (June. 2016)



There are some abraded sections in crossroads. But there is no fall out of powder from paint and no polluted sections severely. It is almost same as just coated 4 years ago.

Comparison of non-slip floor coatings



SHP4080-1



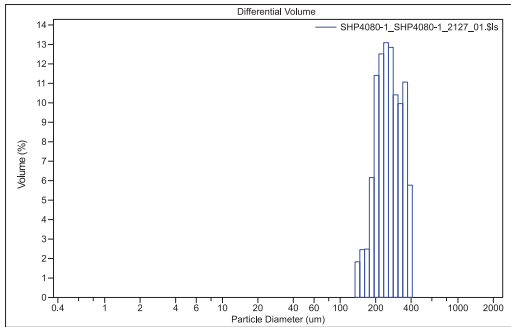
Silica Sand



Emboss Roller



Features	<ul style="list-style-type: none"> • Specific gravity : 0.95 • No fall out of the polymer powder from paint • Excellent non-slip & anti-noise effect • Low cost 	<ul style="list-style-type: none"> • Specific gravity : 2.7 • Easy fall out of the silica sand from paint • Need a large volume of paint • Possibility of abrasion of the skin when contact to the rough & sharp surface 	<ul style="list-style-type: none"> • Low non-slip & anti-noise effect • Need a large volume of paint (thick & high viscosity) • Inefficient coating process due to the limits of area for coating
Workability	<ul style="list-style-type: none"> • Simple coating process • No need extra process & special equipments (roller, spray, airless gun) • Short lead time <p>2. Non-Slip coating 1. Primer coating</p>	<ul style="list-style-type: none"> • Complicated coating process • Long lead time <p>5. Top coat 4. Removal of silica sand 3. Scattering of silica sand 2. Middle coating 1. Primer coating</p>	<ul style="list-style-type: none"> • Complicated coating process • Long lead time • Need special embo roller <p>3. Embo rolling 2. Middle coating 1. Primer coating</p>
Durability	<ul style="list-style-type: none"> • Long-term performance and durability (abrasion & impact resistance) 	<ul style="list-style-type: none"> • Short-term durability • Need maintenance (re-coating) 	<ul style="list-style-type: none"> • Mid-term durability
Surface Characteristics	<ul style="list-style-type: none"> • Uniformly embossed surface (narrow particle size distribution) <p>uniform surface, strong fixation</p>	<ul style="list-style-type: none"> • Nonuniformly embossed surface • Excessively rough surface <p>non uniform & sharp surface</p>	<ul style="list-style-type: none"> • Nonuniformly embossed • Large & deep surface <p>non uniform & coarse surface</p>
Cleaning Characteristics	<ul style="list-style-type: none"> • Easy to clean (homogenized embo surface) 	<ul style="list-style-type: none"> • Difficult to clean • Easy contamination on the surface 	<ul style="list-style-type: none"> • Difficult to clean • Easy contamination on the surface
Total Cost Comparison	30%	100%	83%



Narrow particle size distribution

Surface Characteristics

Acceptable for a wide choice of non-slip floor flooring products. Provides a durable non-slip and anti-noise effect as a result of the very high molecular weight polymer powders.

Provides a uniform surface finish as a result of **SHP4080-1** narrow particle size distribution. Narrow particle distribution provides visual evenness that imparts the look of quality while hiding imperfections on the painted surface.

Mechanical & Chemical Characteristics

- Excellent abrasion and scratch resistance
- Significantly improved impact resistance
- No chipping
- Excellent chemical resistance

Physical Properties of SHP4080-1

Property	Test Method	Unit	Test Value
Melt Index (190 °C / 2.16kg)	ISO 1133 ASTM D1238	g/10min	< 0.1
Mean Average Volume Weighted Particle Size	Laser Diffraction	µm	275
Powder Bulk Density	ISO 60 ASTM D1895	g/cm ³ lb/ft ³	0.45 28.1
Tensile Strength	ASTM D638	kg/cm ²	> 300
Elongation	ASTM D638	%	> 500
Powder shape	-	-	Solid Rounded Particle

The above data and results obtained are average values from laboratory testing and are not to be construed as specifications.

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SHP4080-1

offers a unique combination of properties

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 - ✓ Extended coating life
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