

TECHNICAL DATA SHEET

Product Document: Quartz_Self_Leveling_Epoxy_System_TDS_EN.pdf

System Name: PureEpoX Pre-Mixed Quartz Self-Leveling Epoxy Flooring System (2-Component, 8:1 Ratio)

PureEpoX Pre-Mixed Quartz Self-Leveling Epoxy System is a heavy-duty, two-component 100% solids decorative slurry flooring system. **Part A is factory pre-compounded with ceramic-sintered colored quartz aggregates perfectly dispersed inside cycloaliphatic epoxy resin.** This eliminates jobsite sand blending, airborne dust, and batch-to-batch color variations. On site, contractors simply blend Part B at an **8:1 weight ratio** and pour. The slurry displays exceptional self-smoothing behavior, curing into a dense, monolithic, highly aesthetic floor with superior compressive strength, extreme wear resistance, and long-term chemical stain protection.

Features:

Factory pre-mixed slurry / Convenient 8:1 weight ratio / 100% solids zero-VOC / Ceramic-sintered UV colorfast quartz / Seamless cleanroom hygienic / Superior impact & chemical resistance.

Properties:

Wet State & Slurry Properties			
Property	Test Method	Units	Typical Value
Mix Ratio (Part A : Part B)	By Weight	—	8 : 1 (e.g., 16 kg Part A : 2 kg Part B)
Solids Content	ASTM D2369	%	100%
VOC Content	EPA Method 24	g/L	< 10 (Zero VOC, Low Odor)
Mixed Slurry Specific Gravity	ISO 2811-1	g/cm³	1.75 ~ 1.90
Pre-Mixed Aggregate Core	Mineralogical / Process	—	Ceramic-Sintered Quartz (>800°C Sintered, Mohs 7)
Working Time (Pot Life @ 25°C)	Internal Standard (200g)	min	25 ~ 35 minutes
Cured System Mechanical Properties (28 Days @ 25°C)			
Compressive Strength	ASTM C579 / ISO 604	MPa	≥ 80
Tensile Strength	ASTM D638 / ISO 527	MPa	≥ 28
Flexural Strength	ASTM C580 / ISO 178	MPa	≥ 40
Adhesion to Concrete	ASTM D4541 / ISO	MPa	≥ 3.2 (100% Concrete

Wet State & Slurry Properties			
Property	Test Method	Units	Typical Value
	4624		failure)
Shore D Hardness	ASTM D2240 / ISO 868	—	82 ~ 86
Taber Abrasion Resistance (CS-17, 1000g, 1000r)	ASTM D4060 / ISO 9352	mg loss	≤ 30
Service Temperature Range	Internal Standard	°C	-20 ~ +75

System Build-up & Recommended Application Conditions:

System Layer	Material Specification	Consumption / Coverage
1. Primer Coat	100% Solids Penetrating Epoxy Primer	0.15 ~ 0.20 kg/m² (~100–150 µm)
2. Pre-Mixed Slurry Body	Pre-Mixed Quartz Slurry (Mixed 8:1)	3.50 ~ 4.00 kg/m² (~2.0 mm)
3. Topcoat (Optional)	Polyaspartic / Matte PU Clear Topcoat	0.12 ~ 0.15 kg/m² (~80–100 µm)
Ambient & Substrate Temperature	15 ~ 30°C (20 ~ 25°C recommended)	Substrate RH: ≤ 4.0%
Tack-free Time (25°C)	4 ~ 6 hours	Foot Traffic: 24 hours
Full Mechanical / Chemical Cure	72 hours (Traffic) / 7 days (Chemical)	Concrete Profile: ICRI CSP 2 ~ CSP 3

Cautions:

Because Part A contains heavy, pre-dispersed ceramic quartz, pre-stir Part A mechanically for 1–2 minutes before adding hardener. Add Part B at the precise 8:1 weight ratio and mix with a spiral paddle mixer at 300–450 rpm for 3 minutes until uniform. Pour immediately onto the primed slab, spread using a pin rake / notched squeegee, and roll immediately with a spiked roller to release micro-air bubbles. Apply only when slab temperature is at least 3°C above dew point.

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