Made in the USA with domestic and imported ingredients.

POLYMER NATION CHEMICAL COMPANY, LLC

Setting the Standard

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TECHNICAL DATA SHEET: F-71 MEDIUM SPEED CLEAR POLYASPARTIC

Product Overview

F-71 combines a proprietary blend of polyaspartic resins with aliphatic hardeners to create an intermediate speed, clear polyaspartic. F-71 is an 83% solids, low odor, low viscosity polyaspartic that provides easy application with a moderately fast dry time. It will not yellow or chalk over time and provides a great, high gloss finish with as little as 6 mils WFT.

Uses and Benefits

F-71 is primarily used as a clear topcoat due to its unsurpassed UV and abrasion resistance. It can be applied to floors and walls and adheres well to many substrates including concrete, gypsum, cement board, metals and fiberglass. Alternatively, a low viscosity hardener is available as well (see below).

Limitations

F-71 is designed to be applied between 6-15 mils as a topcoat for floors and 5-6 mils as a topcoat on walls. Ideal application temperatures to be between 60-80°F and 60% RH or less. Cooler temperatures will increase cure times. Warmer temperatures will decrease working and cure times.

Surface Preparation

The preparation method for each project is determined by a full understanding of the substrate to be coated, the chemistry of the coating system being used, the coating system thickness, and numerous other factors. The coating installer should fully read and understand ICRI Guideline NO. 310.2R-2013 and OSHA 29 CFR 1926.1153 before starting preparatory work. The aim, of preparing a substrate for coating applications, is to roughen the surface, remove weak layers, contaminants, dirt, debris and present a solid, clean, dry substrate for the primer. If unsure as to the level of preparation needed contact Polymer Nation at Lab@polymerNation.com.

Mixing

It is always recommended to mix the entire kit, whenever possible, to avoid off-ratio mixtures. Mix ratio is 2 parts F-71 Part A to 1 part F-71 Part B. Combine all of part A and B into a single container, large enough to except the entire kit. Mix using a 350 RPM mixer using an appropriate mixing blade for 1.5 – 2.5 minutes making sure to not introduce excessive air into the material.

Application

Pour ribbon of mixed material onto the floor and spread using a flat blade or notched squeegee. Back roll material immediately using a 3/8" nap roller cover to maintain an even mil thickness of material while maintain a wet edge. Pour next ribbon on top of wet material and repeat the process. Recoat within 24 hours. Clean tools with a solvent similar to Xylene or Acetone.

F-71 LV (Low Viscosity Hardener)

For extra working time and lower mix viscosity, use the alternative low viscosity hardener (see comparison):

Product	Dry to touch	Initial Cure	Through Cure	Mix viscosity
F-71	1.5 hrs	2 hrs	3 hrs	350 cP
F-71 LV	2.5 hrs	3.5 hrs	5 hrs	270 cP
Note: Data collected at 71°F / 50% RH				

Technical Data

The data below was gathered at temperatures of 72-75°F and 30-50% RH

Packaging	3, 15, 165 Gallon kits
Mix Ratio by Volume	2:1
Mixed Viscosity	250-350 cP 25°C/77°F
Gel Time	N/A
Dry to Touch	2-4 hours
Through Dry	5-6 hours
Dry to Walk	7-8 hours
Dry to Light Use	14-16 hours
Full Cure	7 days
Pendulum Hardness (König)	18 @ 24 hours
Pendulum Hardness (König)	50 @ 7 days
Gloss @ 60 Degree Angle	>90
VOC's of Mixed Material	165 g/L (calculated)
Color Scale	N/A
Solids by Volume Mixed	83%
Application in Mils	5-15 (110 – 300 sq. ft./gal.)
Available Colors	Clear and Color Packs

PHYSICAL PROPERTIES
F-71 MEDIUM SPEED CLEAR POLYASPARTIC

Description	Standard	Results
Tensile Strength	ASTM C307	3,270 psi
Moisture Absorption	ASTM C413	<.2 weight increase
Coefficient of Thermal Lineal Expansion	ASTM C531	15-17 x 10-6 27-30 x 10-6
Compressive Strength	ASTM C579	12,500 psi
Modulus of Elasticity	ASTM C580	N/A
Flexural Strength	ASTM C580	5,550 psi
Water Vapor Transmission	ASTM D1653	See ASTM D3010
Impact Resistance	ASTM D2794	>160 inch pounds
Independent Certificate from third party testing agency	ASTM D3010	N/A
Adhesion	ASTM D3359	5A
Abrasion Resistance CS17 1000 g 1000cycles in g Loss	ASTM D4060	0.022g Loss (when higher abrasion resistance is required the addition of PC 1336 to the coating should be included)
Adhesion to Steel	ASTM D4541	>1,000 psi
Hiding Power	ASTM D5150	2-5/175 When pigmented
Flammability When Adhered to Concrete	ASTM D635	Self-Extinguishing
Adhesion to Concrete	ASTM D7234	>450 Substrate failure
Coefficient of Friction Dry Ave. three tests	NFSI B101.0	0.75
Coefficient of Friction Wet Ave. three tests	NFSI B101.1	0.7
Accelerated Weathering Testing	ASTM G154	Non-yellowing

* Dispose of material, containers, solvents, etc., per Federal, State and local guideline, rules and laws
* Store material between 60-80 degrees F in a protected dry location.

Test data has been gathered from testing conducted by independent, internal and third party testing. The best way to compare coating performance is by head-to-head independent testing as this removes the numerous variables found between testing standards, equipment and testing agencies.

Revised: 3/21/25