



NUHUE PIGMENTED MINERAL STAIN

A SOL-SILICATE PIGMENTED MINERAL STAIN

PRODUCT DESCRIPTION

NuHue's Pigmented Mineral Stain is a sol-silicate based, thin-layer mineral stain that provides a penetrating, low pigment or translucent finish when diluted with NuHue Dilution. This non-film forming, mineral matte finish will not fill-in surface imperfections or change the texture or feel of the concrete, leaving it very natural in appearance.

FIELD OF APPLICATION

NuHue's Pigmented Mineral Stain is uniquely formulated for use on new, bare, or aged concrete substrates including concrete, CMU, Gunite, Shot-crete, and Portland Stucco. It provides a translucent finish on fair-faced or raw interior and exterior concrete surfaces, and retains the natural, raw appearance of the surface. It is used to decorate or add color or to visually conceal color variations in new or old concrete and for blending and minimizing the appearance of repairs. It may also be used to provide decorative color wash finishes. NuHue stain offers complete design flexibility and can be diluted as desired with NuHue Dilution for a wide variety of translucent finishes.

Waterproofing may be further enhanced by a pre-treatment with NuHue's Water Repellent Sealer. The application of NuHue Stain together with the penetrating water repellent complies with water protection requirements as per DIN EN 1504-2/2.2.

NuHue's Pigmented Mineral Stain is less weather resistant on horizontal and slightly inclined surfaces.

PROPERTIES

NuHue's Pigmented Mineral Stain protects the concrete from the action of weather and prevents the penetration of atmospheric pollutants. Surface textures of the concrete, such as board-formed textures, are fully retained and never "filled-in". The surface is natural mineral matte in appearance. At various dilutions, different low-pigment finishes may be achieved or optical problems, such as stains or color differences, can be corrected.

- Sol-silicate penetrates and forms permanent chemical bonds - will not peel or lose adhesion
- Light fast, color will not fade
- Extremely vapor-permeable - keeps concrete dryer naturally
- Weather and moisture resistant
- Not affected by pollution or acid rain
- Mineral matte finish is completely compatible with the natural appearance of raw concrete
- Increases light reflectivity - concrete surfaces appear brighter, even in low light



NUHUE STAIN

TECHNICAL DATA

Density	1.1 - 1.3 g/cm ³
Weight	10.1 lbs/gal
VOC by ASTM D6886	<1 g/liter
Vapor Diffusion	sd (H ₂ O) = <0.02m
Water Absorption Coefficient (DIN EN 1504)	W = 0.20 kg/m ² h 0.5
Lightfastness of color pigment (Fb-Code acc. to BFS technical bulletin No.26)	A1 Best in class, no color change after 4 years
Vapor Permeability (ASTM E96)	75-85 perms
Flashpoint	Non-flammable
Alkali Resistance ASTM D1308	Passes
Mildew Resistance ASTM D3273/D3274	Passes
pH of dried finish	10-11
Thermal expansion	Comparable to the concrete substrate
Gloss at 85 degrees (F)	2.0 Mineral Matte Flat

All test results performed on 2 coats NuHue Stain applied at 425—475 sf/gallon.

ENVIRONMENTAL COMPLIANCE

UL Greenguard Gold	Yes
EPA	Yes
LEED	Yes
CARB	Yes
SCAQMD	Yes
EPD	Yes
Sustainability Data Sheet	Yes
Cradle to Cradle Certified	Yes

COLORS AVAILABLE

Full color range including black and white. Custom colors are available.

COLOR & OPACITY

NuHue Pigmented Mineral Stain is available in a full range of colors and can be applied with any amount of opacity, from full hiding to fully translucent.



NUHUE STAIN

SPECIFICATIONS & SYSTEMS

For proper weather resistant performance, 2 coats of NuHue Stain must be applied at recommended coverage rates. Surface should be fully coated, with no pinholes, runs or holidays.

CAST OR PRE-CAST BARE CONCRETE - TRANSLUCENT FINISH

- 1 coat NuHue Stain (diluted as desired)
- 1 coat NuHue Stain (diluted as desired)

CMU BLOCK

- 1 coat NuHue Dilution
(if needed, to provide more uniform porosity)
- 1 coat NuHue Stain (diluted as desired)
- 1 coat NuHue Stain (diluted as desired)

WATERPROOFING SYSTEM

- Pretreat: NuHue Water Repellent Sealer
- 1 coat NuHue Stain (diluted as desired)
- 1 coat NuHue Stain (diluted as desired)

PORTLAND STUCCO

- Pretreat: NuHue Dilution
(if needed to provide more uniform porosity)
- 1 coat NuHue Stain (diluted as desired)
- 1 coat NuHue Stain (diluted as desired)

HORIZONTAL CONCRETE (TRAFFIC)

- 1 Coat NuHue Dilution (if needed)
- 1 Coat NuHue Stain (diluted as desired)
- 1 Coat NuHue Stain (diluted as desired)
- Protective clear finish (contact manufacturer)

SURFACE PREPARATION

The substrate must be sound, solid, dry, clean and free of dust, grease, oils, salts, moss, algae and other substances that would prevent bonding. Old resin coatings, loose substrate layers and organically bound coats must be removed.

For new concrete structures, concrete should be at least 28 days old and any formwork oil, mold lubricating oil, shuttering oil, mold release oil, concrete form oil residues and curing compounds should be removed. The substrate must be porous and water should not "bead" on surface.

Clean, properly cured concrete, without a sinter layer, requires no pre-treatment.

Concrete that will be exposed to severe weather conditions or moisture may be pretreated with NuHue Water Repellent Sealer for added water repellency. NuHue Stain must be applied within a critical recoat window of 4—12 hours under normal drying conditions (window may be reduced in extreme drying conditions). If NuHue Water Repellent dries and forms water repellency, reapply another coat, and follow instructions for recoat with NuHue Stain.

Soft, porous, or friable concrete surfaces, surfaces where porosity is variable, or aged existing mineral coats may be stabilized and consolidated by pre-treatment with NuHue Dilution. Mix 1 part Dilution with 3 parts fresh water and apply to porous surface to saturation. Allow surface to dry 12 hours before proceeding.

Provide appropriate protection for surfaces which are not to be coated (glass, natural stone, ceramics, metal, etc.). Overspray and spills may be difficult to remove once dried to mineral surfaces.



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TRANSLUCENT STAIN

APPLICATION

APPLICATIONS

NuHue stain may be diluted in any ratio with NuHue Dilution depending on the desired translucency of the finish. It is recommended to coat trial areas to determine the dilution ratio. NuHue Stain must be stirred before and during work as pigment will settle out quickly in the low viscosity stain. It is important to work swiftly using wet-on-wet application to maintain a wet edge to a corner or architectural feature. Never stop staining in the middle of a façade.

Note: The NuHue components of stain and dilution can be mixed in any desired ratio.

OPAQUE COATING

Two coats of NuHue Stain can be applied as an opaque decorative coating which retains the texture of the surface. In this application, the first coat should be diluted 10-25% with NuHue Dilution, and the second coat applied undiluted by brush, roll or spray, keeping a wet edge. It is important to work swiftly wet-on-wet, and to maintain a wet edge to a corner or architectural feature.

DRYING TIMES

At least 12 - 24 hours between coats with regular drying conditions. Lower temperatures and high humidity can extend dry times.

Air and surface temperature: >41°F and up to maximum 86°F (5°C –30°C) with relative humidity below 80%. Apply only to dry surfaces and in dry weather. Do not apply in direct sun or sun-heated substrates or in strong wind. Surfaces must be protected after application from rain, wind, and direct sun until they are completely dried or a minimum of 12 hours.

Brush: Use a nylon/polyester brush

Roller: Use a 3/8" to 1/2" nap synthetic roller cover

Airless spray: 3000 psi suggested with a tip size of 0.25 in, minimum. Remove mesh filters from pump and spray gun handle to limit clogging.

DO NOT THIN WITH WATER.

COVERAGE

SUBSTRATE	COVERAGE*
Cast or Precast Concrete	325-575 SF/GAL**
CMU Smooth	50-125 SF/GAL
CMU Split Face	25-100 SF/GAL
Gunite/Shotcrete	100-175 SF/GAL
Portland Stucco	100-175 SF/GAL

* Stated values are based on experience on smooth surfaces. Surface texture, density, porosity, application conditions, and type of equipment used will all vary consumption. Only a test application, using desired mixing ratio and under production conditions will forecast consumption of the stain accurately.

** Coverage increases for low pigment volume stain applications.



NUHUE STAIN

CLEAN-UP

Clean immediately after use with water. Tools should be kept in the paint material or in water during work breaks. Any splashes on surrounding surfaces or traffic areas must be rinsed off immediately with plenty of water. Once dried, cleaning is very difficult.

MIXING (WITH OTHER PRODUCTS)

Do not mix with other products or additives.

PACKAGING

1 Gallon and 4 Gallon plastic pails

STORAGE

Approx. 12 months in tightly closed container under cool, frost-free conditions. Protect from heat and direct sunlight.

SAFETY INSTRUCTIONS

CAUTION! SKIN OR EYE CONTACT MAY CAUSE TEMPORARY IRRITATION

Use proper protective equipment and clothing. Avoid breathing spray mist. Open windows and doors or use other fresh air supply during application indoors or wear respiratory protection (NIOSH Approved). Wash hands and skin after handling. Keep container closed when not in use.

FIRST AID: If swallowed, give two glasses of water. Do not induce vomiting. Call for medical help immediately. Never give anything by mouth to an unconscious person. If inhaled, remove to fresh air. If breathing is difficult, give oxygen. In case of skin irritation, consult a physician. In case of contact, immediately flush eyes, and skin with plenty of water; get medical help if needed.

KEEP OUT OF REACH OF CHILDREN

DO NOT TAKE INTERNALLY

DISPOSAL

Any residues must be emptied out of containers before recycling. Dispose of completely emptied containers in accordance with local, state, and federal waste regulations.

The stated values and properties are the result of extensive development work and practical experience. Our recommendations for application, whether given verbally or in writing, are intended to provide assistance in the selection of our products and do not establish a contractual relationship. In particular, they do not release those purchasing and applying our products from the duty of establishing for themselves, with due care, the suitability of our products for the intended application. Standard building industry practices must be complied with. We retain the right to make modifications to improve the products or their application. This edition supersedes all earlier editions.

WARRANTY

NuHue warrants our products are manufactured to strict quality assurance specifications and that the information supplied by us is accurate to the best of our knowledge. Such information supplied about our products is not a representation or a warranty. It is supplied on the condition that you shall make your own tests to determine the suitability of our product for your particular purpose. Any use or application other than recommended herein is the sole responsibility of the user. Listed physical properties are typical and should not be construed as specifications. No warranty is made, expressed or implied, regarding such other information, the data on which it is based or the results you will obtain from its use. We shall have no liability for incidental or consequential damages, direct or indirect. No representative is authorized to make any representation or warranty or assume any other liability on our behalf with any sale of our products. Acceptance of delivery of our product means that you have accepted the terms of this warranty whether or not purchase orders or other documents state terms that vary from this warranty. No representative is authorized to make any representation or warranty or assume any other liability on our behalf with any sales of our products. Our products contain chemicals that may cause serious physical injury. Before using, read the Safety Data Sheet and follow the precautions to prevent bodily harm.

Purchaser must determine the suitability of the products for the intended use and assumes all risks and liabilities in connection therewith. This information and all further technical advice are based on NuHue's present knowledge and experience. However, NuHue assumes no liability for providing such information and advice including the extent to which such information and advice may relate to existing third party intellectual property rights, especially patent rights, nor shall any legal relationship be created by or arise from the provision of such information and advice. NuHue reserves the right to make any changes according to technological progress or further developments. The Purchaser of the Product(s) must test the product(s) for suitability for the intended application and purpose before proceeding with a full application of the product(s). Performance of the product described herein should be verified by testing and carried out by qualified experts.

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Reg Hough Associates LLC.

919 Route 33 East STE 46

Freehold, New Jersey

07728

www.regoughassociates.com

www.nuhue.com

(732) 600 - 8977