



**Breathable
Silicone based paint
for building's Walls
& Masonry**

**Breathable
Water Repellent
Fungi Resistant
Water-based**

**Nature
Shield
Silicon**

Walls & Masonry



www.abolinco.com

Nature Shield

Internal and external wall protective and decorative finishes

A special silicone hybrid binder technology combination generates water repellent (Lotus effect), highly water-vapor permeable paint. Nature Shield Silicon is suitable for coating mineral sub-layers and for the renovation of sound, adherent silicate paints, matt dispersion paints and intact external thermal insulation composite systems (ETICS/EWI systems).

Nature Shield Silicon Enhance Quality of Life

Special Characteristics

- ✓ Environmentally and user friendly
- ✓ Water based
- ✓ Low Voc's
- ✓ Algae and Fungi Resistance
- ✓ Alkali and Efflorescence Resistance

Typical Data according to EN 1602-1		Paints and varnishes — Coating materials and coating systems for exterior masonry and concrete					
Water Permeability	W3	W=0,058Kg/m ² h ^{0,5}					
Water Vapor Transmission Rate	V1	Sd= 0,0636					
Carbon Dioxide Permeability	C0	Sd _{CO2} =2,077m					
Crack Binding Properties	A0	No Requirement					
Specular Gloss (G)	G3	Matt					
Dry film Thickness	E2	> 50 ≤ 100					
Grain Size	S1	Fine < 100 μm					
Designation Code	W3	V1	C0	A0	G3	E2	S1

Typical Data according to EN 1602-11
UV/Moisture Weathering Test

Paints and varnishes —Coating materials and coating systems for exterior masonry and concrete Part 11: Methods of conditioning before testing

EN ISO 4628-2:2007 Blistering degree	1000 Hours	No Blistering
EN ISO 4628-4:2007 Cracking degree	1000 Hours	No Cracking
EN ISO 4628-5:2007 Flaking degree	1000 Hours	No Flaking

Typical Data according to EN 1504-2
Performance characteristics according to the principles defined in EN 1504-9 (tables 1 and 5 of EN 1504-2)

Products and systems for the protection and repair of concrete structures. Definitions, requirements, quality control and evaluation of conformity. Surface protection systems for concrete

Principles	Minimum requirements (table 5 EN 1504, part 2)	Nature Shield Silicon characteristic values
Permeability to water vapour Test method EN ISO 7783 - 1 EN ISO 7783 - 2	Class I: $S_d < 5$ m Class II: $5 \text{ m} \leq S_d \leq 50$ m Class III: $S_d > 50$ m	Class I $S_d = 0,0636$ m
Capillary absorption and permeability to water Test method EN 1062 - 3	$W < 0,1 \text{ kg/m}^2 \times \text{h}^{0.5}$	$W = 0,058 \text{ Kg /m}^2 \text{h}^{0.5}$
Adhesion strength by pull-out test Test method EN 1542	Crack bridging Rigid or flexible systems No traffic $\geq 0,8 \text{ N/mm}^2$ $\geq 1,0 \text{ N/mm}^2$	$\geq 0,8 \text{ N/mm}^2$ *

* Abolin Co recommends ADHESION TESTS prior to bidding the project to ensure adhesion and compatibility between the coating and the substrate.



Suitable Substrates: The substrate must be sound/stable, dry, clean, and free from all substances that may prevent good adhesion. Where applicable follow VOB, part C, DIN 18363, section 3.

Substrate Preparation

New and Existing, Sound ETICS/EWI Systems with Surfaces of Synthetic Resin-Bound (Organic) Render/Plaster, Silicone Resin Render/Plaster, Lime Plaster (PIc) and Lime Cement Plaster/ Minimum Compressive Strength according to EN 998-1: 1 N/mm². Clean existing renders/plasters by suitable wet cleaning method. Maximum temperature for high pressure water jet: 60 °C.

Pressure: max. 60 bar. Allow to dry thoroughly.

New Renders/Plasters in Mortar Groups/Classes P Ic (Hydraulic Lime Plaster), PII (Lime-Cement Mortars), P III (Cement Mortars) / Minimum Compressive Strength according to EN 998-1: 1 N/mm²: New renders/plasters must be left untreated for a sufficiently long time, normally for 3 weeks at 20 °C and 65 % relative humidity. Adverse weather conditions, e.g. influenced by wind or rain, extend the curing process and correspondingly longer idle times must be respected.

The risk of calcareous efflorescence on alkaline finish renders of mortar classes PIc, PII and PIII can be minimised by an additional priming coat of Cool Barrier Grip or Cool Barrier Grip IPS and the finishing render/plaster may be coated after an idle time of 7 days.

Existing renders/plasters: Repairs must have adequate time to cure and dry. Highly porous, absorbent, slightly sanding renders/ plasters: Apply one or two coats of Nature Shield Silicon Primer. Prime highly sanding, chalking substrates with 2 coats Nature Shield Silicon Primer.

New Silicate Finish Renders: Prime with two coats wet on wet of Cool Barrier Grip or Nature Shield Silicon Primer

Existing Coatings of Silicate Paints: Clean adherent, sound coatings mechanically or with high-pressure water jet, in compliance with the regulations. Remove unstable, weathered coatings by abrading, sanding/grinding or by scraping off. Prime with Nature Shield Silicon Primer

Sound/Stable Coats of Matt (Flat) Emulsion Paint: Clean soiled, chalking coatings by high pressure water jet, in compliance with the regulations. Prime with Nature Shield Silicon Primer, if other cleaning methods are used (washing, wire brushing, hosing with water).

Sound/Stable Coatings of Synthetic Resin-Bound (Organic) or Silicone Resin Render/Plaster: Clean existing coatings by suitable means. Allow wet cleaned surfaces to dry thoroughly before further treatment.

Unsound Coatings of Emulsion Paint or Synthetic Resin-Bound (Organic) Render/Plaster: Remove completely by suitable means, e.g. mechanically or via paint stripper, followed by surface cleaning with a high pressure water jet, in compliance with the regulations. Apply one or two priming coat of Nature Shield Silicon Primer

Unsound Mineral Paint Coatings: Remove the coating completely by sanding off, brushing off, scraping off, using high pressure water jet in compliance with the regulations, or treat with other suitable methods. Allow wet cleaned surfaces to dry thoroughly before further treatment.

Prime with Nature Shield Silicon Primer.

Fair-Faced Brickwork (Masonry): Only bricks and clinkers of frost-resistant quality and free of foreign inclusions are suitable substrates for exterior coats of paint. Masonry must be dry and free of salts/salty efflorescence, jointing must be free of cracks. Apply one priming coat of Nature Shield Silicon Primer.

Sand-Lime Brickwork (Masonry): Only frost resistant bricks, free of foreign inclusions, e.g. sand or loam, are suitable for being painted. Jointing must be free of cracks. Clean chalking surfaces. Remove salty efflorescence by dry wire brushing. Prime with Nature Shield Silicon Primer.

Surfaces with Fungal (Fungi/Mildew/Mould) or Algal Attack: Remove mould and algal with proper surface treatment. Prime with Nature Shield Silicon Primer.

Surfaces with Salty Efflorescence: Remove salty efflorescence thoroughly by dry wire brushing and apply one priming coat of Prime with Nature Shield Silicon Primer. Coating of such surfaces must be considered a risk for which we cannot accept responsibility, since even after the most thorough treatment the efflorescence may recur.

Note: Abolin Co recommends ADHESION TESTS prior to bidding the project to ensure adhesion and compatibility between the coating and the substrate.

Method of Application: roller, brush or Airless Spray

Tips for application with airless equipment:

Spray angle: 30°

Nozzle: 0.016" - 0.019" double nozzle

General: Apply a first or intermediate and finishing coat of undiluted Active Cool with the airless equipment, and then roll evenly over the surface with a standard facade roller. On sound/stable existing coatings very often one liberally applied restorative coat (min. 300 ml/m²) is sufficient. Minimum drying time between coats: 12 hours.

Consumption: Approx. 200 -250 ml/m² depending on surface's profile condition. The exact consumption is best established by a trial coating on site.

Application Conditions

Lower Temperature Limit for Application and Drying: +5 °C for material, substrate and ambient air.

Drying/Drying Time: At + 20 °C and 65 % relative humidity surface-dry after 2–3 hours and recoatable after 12 hours. Completely dry after 5–7 days. Lower temperatures and higher relative humidity extend the drying time.

Tool Cleaning: Clean tools (paint equipment) immediately after use with water.

Notes: Do not use on wood, metal, enamels, etc. Do not apply on horizontal surfaces exposed to rain or moisture and direct strong sunlight. Scaffolding nets or protective tarpaulins should be used, if necessary, depending on weather conditions. Facade plates, also if covering some levels of scaffolding, are to be coated plate by plate and wet-on-wet, followed by very thoroughly and uniform rolling in one direction, thus avoiding texture irregularities which otherwise may be noticeable in adverse lighting conditions, e.g. sidelight.

EU limits value for the VOC content of this product: (category A/c): max. 40 g/l (2010).

This product contains max. 25 g/l VOC.

Further Details: Before use, see Material Safety Data Sheet (MSDS).

LIMITATION OF LIABILITY

The information in this data sheet is based upon laboratory tests we believe to be accurate and is intended for guidance only. All recommendations or suggestions relating to the use of the Coatings products made by Abolin Co, whether in technical documentation, or in response to a specific enquiry, or otherwise, are based on data which to the best of our knowledge are reliable. The products and information are designed for users having the requisite knowledge and industrial skills and it is the end-user's responsibility to determine the suitability of the product for its intended use.

Abolin Co has no control over either the quality or condition of the substrate, or the many factors affecting the use and application of the product. Abolin Co Coatings does therefore not accept any liability arising from loss, injury or damage resulting from such use or the contents of this data sheet (unless there are written agreements stating otherwise).

The data contained herein are liable to modification as a result of practical experience and continuous product development. This data sheet replaces and annuls all previous issues and it is therefore the user's responsibility to ensure that this sheet is current prior to using the product. The English text of this document shall prevail over any translation thereof.

The management system has been certified according to EN ISO 9001

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