## **Protectosil**®

## Modular 2K waterproofing system providing a long lasting beading effect



Our modular 2K system is a tailor made combination of two water-based systems with unique chemical compositions. It does not only offer excellent water repellency and an outstanding long-lasting beading effect – with this customizable solution, it also offers high flexibility regarding treatable substrate types or performance requirements.

**Evonik Silanes – Performance beyond expectations** 

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#### Stepwise configuration of 2K system according to individual requirements

Protectosil® emulsion for 2K formulation	Concrete	Brick	Sand- limestone	Roof tiles (natural)	Roof tiles (engobed)	Fiber cement boards
Protectosil <sup>®</sup> WS 410	$\bigcirc$		<b>S</b>			<b>I</b>
Protectosil <sup>®</sup> WS 340	<b>S</b>		<b>S</b>	<b>S</b>	<b>S</b>	<b>S</b>
Protectosil <sup>®</sup> WS 670	<b>I</b>	<b>S</b>	<b>S</b>	<b>S</b>		<b>Ø</b>
Protectosil <sup>®</sup> WS 602		<b>S</b>	<b>S</b>	<b>S</b>	<b></b>	

#### Step 1: Choose emulsion according to substrate to be treated

#### Step 2: Choose dilution rate of selected emulsion and prepare first component

Protectosil® emulsion for 2K formulation	Concrete	Brick	Sand- limestone	Roof tiles (natural)	Roof tiles (engobed)	Fiber cement boards			
	recommended consumption rate of the final 2K formulation (dilution rate of emulsion in water)								
Protectosil <sup>®</sup> WS 410	150 g/m² (1:1.5)		250 g/m² (1:1.5)			40-90 g/m² (1:4)			
Protectosil <sup>®</sup> WS 340	180 g/m² (1:1)		220 g/m² (1:3)	90 g/m² (1:3)	50 g/m² (1:1)	40-90 g/m² (1:3)			
Protectosil <sup>®</sup> WS 670	200 g/m² (1:1)	250 g/m² (1:3)	250 g/m² (1:3)	90 g/m² (1:3)		40-90 g/m² (1:3)			
Protectosil <sup>®</sup> WS 602		250 g/m² (1:4)	250 g/m² (1:4)	90 g/m² (1:4)	30 g/m² (1:4)	40-90 g/m² (1:4)			

#### Step 3: Use 10 parts of the diluted emulsion and add 1 part Dynasylan® F 8815

Step 4: Use formulation within 48 hours after preparation

Example: (1) Brick has to be treated with Protectosil® WS 602. (2) Protectosil® emulsion is diluted 1:4. (3) 10 | Protectosil® WS 602 (1:4 in water) are mixed with 1 | Dynasylan® F 8815 (4) Resulting 111 of formulation allow for treatment of approx. 44 m<sup>2</sup> of brick.

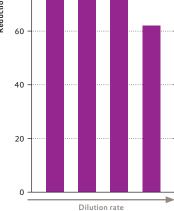


### **Key benefits**

Performance data

- Modular system offering excellent water repellency and outstanding water beading for at least five years
- Hydrophobizing agent (emulsion) significantly reduces water uptake and can be chosen according to substrate to be treated
- Dilution rate of emulsion adjustable to substrate and performance requirements
- Water-based system
- Colorless and water vapor permeable protection

# Example: brick stone Reduction of water uptake Reduction of water uptake [%] after 4 years after 3 years after 2 years after 1 year ouv\* prior to With increased dilution of Protectosil®, the reduction of water uptake decreases



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\*300 h of QUV accelerated weathering correspond to about one year of outside weathering in climatic conditions found in Southwest Germany.

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QUV tests using an artificial weathering device in accordance to EN ISO 11507 were performed to evaluate the longterm performance of the Protectosil® products. For weather conditions similar to those in southwestern Germany, the correlation between natural and artificial weathering is about 1 year to 300 hours.

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