



DECLARATION OF PERFORMANCE No. 0436

1. Unique identification code of the product-type: **GeoSteel SRP (GeoSteel G2000 and Geolite Gel)**
2. Intended use/es: **The SRP kit is suitable for strengthening and seismic upgrade of clay and natural stone masonry, reinforced and prestressed concrete elements and structures**
3. Manufacturer: **Kerakoll S.p.A Via dell'Artigianato, 9 - 41049 Sassuolo (MO) Italia**
4. System/s of AVCP:
System 2+
System 3 for reaction to fire
5. European Assessment Document: **EAD 340210-00-0104, November 2017**
European Technical Assessment : **ETA-18/0314 of 16/05/2018**
Technical Assessment Body: **ITC CNR**
Notified body/ies: **ITC n°0970**
6. Declared performance/s:
 - Characteristic value for tensile strength and tensile strain
 - Average value for modulus of elasticity

Essential characteristics	Performance
Reaction to fire	Class D-s2,d0
GeoSteelG2000-Geolite gel	See Annex A

The performance of the product identified above is in conformity with the set of declared performance/s. This declaration of performance is issued, in accordance with Regulation (EU) No 305/2011, under the sole responsibility of the manufacturer identified above.

Signed for and on behalf of the manufacturer by: **Romano Sghedoni (legal representative)**

At Sassuolo, on 12/04/2019



Annex A – GeoSteel G2000-Geolite gel

Essential characteristics		Performance
Tensile strength (σ_u)	1 layer	≥ 3040 MPa
	3 layers	≥ 2800 MPa
Strain (ϵ_u)	1 layer	$\geq 0,015$ mm/mm
	3 layers	$\geq 0,015$ mm/mm
Modulus of elasticity (E)	1 layer	≥ 214000 MPa
	3 layers	≥ 206000 MPa
Interlaminar shear strength (τ)	No interlaminar shear failure	≥ 8 MPa
Lap tensile strength (σ_{lap})	Tested Overlap length $l_{lap} = 200$ mm	≥ 1920 MPa
Bond strength on substrate Concrete MC (0.40) : pull-off test	ambient	≥ 2 MPa
	Water, saltwater and alkali conditioning	NPA
Bond strength on substrate Concrete MC (0.40) : single-lap shear test	ambient	$P_{max} \geq 11000$ N $P_{deb} \geq 10700$ N
	Water, saltwater and alkali conditioning	NPA
Pull out from substrate Concrete MC (0.40)	ambient	Pull out strength $\sigma_{pull-out} \geq 1870$ MPa Pull out displacement $\delta_{pull-out} \geq 8,4$ mm
	Water, saltwater and alkali conditioning	NPA
Freezing and Thawing	Direct tension	Tensile strength $\sigma_{u,FT} \geq 3000$ MPa Strain $\epsilon_{u,FT} \geq 0,018$ mm/mm Modulus of elasticity $E_{FT} \geq 207$ GPa
	Retained properties	Tensile strength $\sigma_{u,FT,ret} 101$ % Modulus of elasticity $E_{FT,ret} 101$ %
	Interlaminar shear	NPA
Water resistance	Direct tension (1000 h)	Tensile strength $\sigma_{u,w} \geq 3030$ MPa Strain $\epsilon_{u,w} \geq 0,018$ mm/mm Modulus of elasticity $E_w \geq 209$ GPa
	Direct tension (3000 h)	Tensile strength $\sigma_{u,w} \geq 3050$ MPa Strain $\epsilon_{u,w} \geq 0,017$ mm/mm Modulus of elasticity $E_w \geq 214$ GPa
	Retained properties (1000 h)	Tensile strength $\sigma_{u,FT,ret} 102$ % Modulus of elasticity $E_{FT,ret} 101$ %
	Retained properties (3000 h)	Tensile strength $\sigma_{u,FT,ret} 103$ % Modulus of elasticity $E_{FT,ret} 104$ %
	Interlaminar shear	NPA
	Lap Tensile	NPA



Essential characteristics		Performance
Saltwater resistance	Direct tension (1000 h)	Tensile strength $\sigma_{u,sw} \geq 2960$ MPa Strain $\varepsilon_{u,sw} \geq 0,016$ mm/mm Modulus of elasticity $E_{sw} \geq 215$ GPa
	Direct tension (3000 h)	Tensile strength $\sigma_{u,sw} \geq 2930$ MPa Strain $\varepsilon_{u,sw} \geq 0,017$ mm/mm Modulus of elasticity $E_{sw} \geq 209$ GPa
	Retained properties (1000 h)	Tensile strength $\sigma_{u,FT,ret}$ 100 % Modulus of elasticity $E_{FT,ret}$ 104 %
	Retained properties (3000 h)	Tensile strength $\sigma_{u,FT,ret}$ 100 % Modulus of elasticity $E_{FT,ret}$ 101 %
	Interlaminar shear	NPA
	Lap Tensile	NPA
Alkali resistance	Direct tension (1000 h)	Tensile strength $\sigma_{u,alk} \geq 2900$ MPa Strain $\varepsilon_{u,alk} \geq 0,017$ mm/mm Modulus of elasticity $E_{alk} \geq 206$ GPa
	Direct tension (3000 h)	Tensile strength $\sigma_{u,alk} \geq 2950$ MPa Strain $\varepsilon_{u,alk} \geq 0,016$ mm/mm Modulus of elasticity $E_{alk} \geq 211$ GPa
	Retained properties (1000 h)	Tensile strength $\sigma_{u,FT,ret}$ 100 % Modulus of elasticity $E_{FT,ret}$ 100 %
	Retained properties (3000 h)	Tensile strength $\sigma_{u,FT,ret}$ 100 % Modulus of elasticity $E_{FT,ret}$ 102 %
	Interlaminar shear	NPA
	Lap Tensile	NPA
Alkali soil resistance		NPA
Dry heat resistance		NPA
Fuel resistance		NPA
Creep behaviour related to the adhesion on substrate		NPA
Tensile strength after low number of cycles (seismic behaviour)		NPA
Tensile strength after high number of cycles (fatigue actions)		NPA
Tensile strength on bent fabric	Straight fabric	NPA
	Bent fabric	NPA
Creep rupture		NPA
Void content		NPA
Glass Transition Temperature of resin		$T_g \geq 60^\circ\text{C}$