

Aqueous, oligomeric, functionalized silane hydrolysates

## Our Dynasylan® HYDROSIL series



**Dynasylan® HYDROSILs** are aqueous, oligomeric, functional silane hydrolysates for filler treatment, glass fibers/fabric sizing, or metal & adhesives priming. These products are ready-to-use, facilitate formulating, and avoid the necessity for complex hydrolysis processes at your facility.

**Dynasylan® HYDROSILs** have various functionalities that enable organophilic properties suitable for your resin, resulting in an optimal adhesion between your resin and inorganic substrate.

### Dynasylan® HYDROSIL series – At a Glance



#### Attractive product profile

- Aqueous, oligomeric, functionalized silane hydrolysates
- Various functionalities to achieve hydrophilic or hydrophobic properties



#### Easy to use

- Easily diluted with water
- Applicable in a broad pH range
- Non-flammable (flash point  $\geq 95^\circ\text{C}$ )



#### Benefits

- Alcohol content of  $\leq 1\%$  guarantees safe handling and minimal VOC emission
- Ready-to-use – no hydrolysis chemistry
- Optimal reaction with organic polymers and inorganic substrates
- Excellent surface wetting
- Extended shelf life (usually 12+ months)

## Our product portfolio offers dedicated aqueous, oligomeric, functional silane hydrolysates for your needs

Dynasylan® HYDROSIL	Functionality	pH value	Recommended dosage/wt.%
1151	-NH <sub>2</sub>	10–11	2.0–2.5
1153	-NH <sub>2</sub>	10–11	1.5–2.0
2627	-NH <sub>2</sub> / alkyl	10–11	4.0–5.0
2907	-NH <sub>2</sub> / vinyl	3–5	1.5–2.0
2909	-NH <sub>2</sub> / alkyl	4–5	1.5–2.0
VPS 2961	NH- & -NH <sub>2</sub> & -NH <sub>2</sub> <sup>(*)</sup> / benzyl	3–5	1.5–2.0
VPS 2978	NH- & -NH <sub>2</sub> & -NH <sub>2</sub> <sup>(*)</sup> / vinyl-benzyl	2–4	2.0–2.5
2776	NH- & -NH <sub>2</sub> / alkyl	10–11	3.0–3.5
2775	NH- & NH- & -NH <sub>2</sub>	10–11	3.0–3.5
VPS 2975	-NR <sub>2</sub> <sup>(*)</sup> -	8–9	2.0–2.5
2999	-NR <sub>2</sub> <sup>(*)</sup> - & -NR <sub>2</sub>	8–9	2.0–2.5
2926	Diol	2–3	3.0–3.5
VPS 2990	Methacryl-amido / methacrylate	5–8	2.5–3.0
13001 XP	-SO <sub>2</sub> -OH	<1	1.5–2.0

### VPS 2961 & VPS 2978 ensure stability in temperature and moisture sensitive applications (e.g. Printed Circuit Boards)

Dynasylan® HYDROSIL	Structural degradation of silane by TGA	Water uptake after 3 h PCT <sup>1</sup>	Delamination after 3 h PCT <sup>1</sup>
VPS 2961	321 °C	0.68 wt.%	5/5 visually o.k.
VPS 2978	353 °C	0.66 wt.%	5/5 visually o.k.

<sup>1</sup> PCT: pressure cooking test in water/5 samples/3 h @ 121 °C in autoclave & determination of water uptake of the laminates afterwards delamination test @ 288 °C

**Evonik Operations GmbH**  
Silanes business line  
Rodenbacher Chaussee 4  
63457 Hanau-Wolfgang/Germany

[dynasylan@evonik.com](mailto:dynasylan@evonik.com)  
[silanes.evonik.com/en](http://silanes.evonik.com/en)



This information and any recommendations, technical or otherwise, are presented in good faith and believed to be correct as of the date prepared. Recipients of this information and recommendations must make their own determination as to its suitability for their purposes. In no event shall Evonik assume liability for damages or losses of any kind or nature that result from the use of or reliance upon this information and recommendations. Evonik expressly disclaims any representations and warranties of any kind, whether express or implied, as to the accuracy, completeness, non-infringement, merchantability and/or fitness for a particular purpose (even if evonik is aware of such purpose) with respect to any information and recommendations provided. Reference to any trade names used by other companies is neither a recommendation nor an endorsement of the corresponding product and does not imply that similar products could not be used. Evonik reserves the right to make any changes to the information and/or recommendations at any time, without prior or subsequent notice. Dynasylan® is a registered trademark of Evonik Industries or its subsidiaries.