

Two possible test procedures are suggested for evaluating the degree of degreasing:

**1) Water Break Test:**

The run-off characteristics of the water are evaluated on a degreased or etched cut-off sample of the profile after removing it from the final rinsing bath and before subjecting it to the conversion treatment. If this cannot be carried out promptly, the treated cut-off sample should be re-immersed in demineralized water.

Adequate degreasing has been achieved if the water film on the surface is not seen to break up or run together within 10 seconds.

A retraction of the water film at the edges (approx. 1 cm) should not be regarded as negative. (Source: VDA 230-201 "Prelubes" Section 5.10.12)

**2) Droplet Test:**

Alternatively, the diameter of a water droplet can be determined in a similar manner to the measurement of the contact angle.

Using a micro-litre syringe, 5 µl of freshly drawn tap water is applied to the degreased and pickled surface and the diameter of the droplet is then gauged in millimetres using a linen tester.

The following gradation of the droplet diameter describes the degree of degreasing:

A/B= good; C/D= acceptable; E and above = poor

<b>Benetzungsstufe</b>	<b>Tropfendurchmesser</b>	<b>Randwinkel</b>
<b>A</b>	<b>&gt; 8,0 mm</b>	<b>&lt; 6°</b>
<b>B</b>	<b>5,0 – 8,0 mm</b>	<b>6° – 22°</b>
<b>C</b>	<b>3,5 – 5,0 mm</b>	<b>22° – 55°</b>
<b>D</b>	<b>3,0 – 3,5 mm</b>	<b>55° – 75°</b>
<b>E</b>	<b>&lt; 3,0 mm</b>	<b>&gt; 75°</b>
<b>walzhart</b>	<b>&lt;&lt; 3,0 mm</b>	<b>&gt;&gt; 90°</b>

**For new plants it is recommended that provision be made for an inspection flap upstream of the passivation zone (conversion treatment).**

Benetzungsstufe	Tropfendurchmesser	Randwinkel
A	> 8,0 mm	< 6°
B	5,0 – 8,0 mm	6° – 22°
C	3,5 – 5,0 mm	22° – 55°
D	3,0 – 3,5 mm	55° – 75°
E	< 3,0 mm	> 75°
walzhart	<< 3,0 mm	>> 90°

Benetzungsstufe = Degree of Wetting  
 Tropfendurchmesser = Droplet Diameter  
 Randwinkel = Contact Angle  
 walzhart = as-rolled