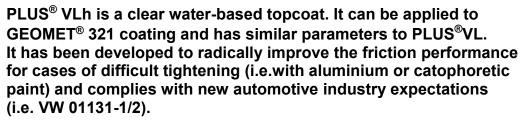
## PLUS® VLh



# The evolution of PLUS® VL with improved performance



#### Characteristics and performance\*

- Friction coefficient on GEOMET<sup>®</sup> 321 base-coat grade A (>24g/m²)
   PLUS<sup>®</sup> VLh: μ<sub>tot</sub> = 0,09 0,14
- Salt Spray Test according to ISO 9227 / ASTM B117
   GEOMET® 321 + PLUS® VLh > 720 hours without red rust
- Coating weight of PLUS VLh: 5 g/m² minimum
- Same IMDS as for PLUS<sup>®</sup> VL
- No induced hydrogen embrittlement
- Improvement of friction performance on and in aluminium (double tightening within elastic limit on aluminium according to VW 01131-1)
- Improvement of friction performance regarding multitightening (5x) onto catophoretic paint while avoiding stick-slip problems for cases of difficult tightening
- Excellent behaviour in tests of loosening at high temperatures (VDA 235/203; VW 01131-2)
- Excellent resistance to solvents, fuels and brake fluids (VDA 621-412)

<sup>\*</sup> Results may vary depending on substrate, geometry of parts and type of application processes
The tribological properties (COF, stick-slip...) are validated on a reference hex-headed M10x55 screw according to ISO 16047







#### Health and safety

- Aqueous dispersion
- Complies with REACh
- Complies with the 2011/65/EU and (EU) 2015/863 directives

### Main worldwide specifications

- VW TL245 Ofl t647
- DAIMLER DBL 9440.40
- BMW (GS 90010)

#### International standards

ISO 10683 - Fasteners: non-electrolytic zinc flake coatings

**EN 13858** - Non-electrolytic zinc flake coatings on iron and steel parts



