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Evaluating adhesion by dolly pull-off adhesion test

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Good adhesion of a coating is a basic condition and preferably during the entire life of the coating. A dolly pull-off adhesion test can give a good indication in advance of the adhesion quality of wetchemical coatings or whether an adhesion problem can be attributed to the coating itself or to the substrate.

Roughness, pretreatment and type of coating have a significant influence on the adhesion of coatings on surfaces. Whether we are talking about a ship's bow or the cover of a mobile phone, we strive to keep a coating for as long as and as functional as possible. Sirris has extensive experience and techniques for testing the properties of coatings (testlabs.sirris.be) and is now also adding the dolly pull-off adhesion test to its range of tests for coatings. Using a dolly pull-off adhesion test, it's possible to get an idea of the quality of wet-chemical coatings in advance. If the adhesion of coatings is no longer satisfactory, a dolly pull-off test can be used to check whether it is the coating itself that does not adhere sufficiently (cohesion) or whether the coating anchors itself insufficiently to the substrate (adhesion).

Test method

All tests are done in accordance with the ASTM D4541 and BS EN ISO 4624 standards. For these test methods, we glue a standardised component (the 'dolly') to the coating and let the adhesive cure for 24 hours. There is a selection of dollies with different diameters. If necessary, we cut through the top coat around the dolly.



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