

HIGH PERFORMANCE STONE CHIP RESISTANCE TEST

Application

This test method is used to determine the resistance of antistone chip materials for exterior body surfaces.

Apparatus and Material Required

Stone Chip Resistance Tester - VDA Model 508

Source:

Erichsen GmbH & Co. KG
D-5870 Hemer-Sundwig
Germany

Pearson Panke Ltd.
1-3 Halegrove Gardens
London, England

Chilled Iron Grit "Diamant" - angular, 4 - 5 mm in size, rust free

Source: Eisenwerke Wurth GmbH
7101 Bad Friedrichshall/Jagstfeld

Test Panels

Plane surface, prepared and painted in accordance with the relevant material specification, dimensions minimum 200 x 100 mm, coating thickness determined according to BI 117-01 or as otherwise specified.

Water Bath

According to BI 104-01.

Evaluation Standards

4 colour photographs

Source: Central Laboratory
Ford-Werke AG
5000 Köln 60
West Germany

Date	Action	Revisions
2001 03 13	Revised	Editorial – no technical change A. Cockman
1994 02 28		

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Conditioning and Test Conditions

All test values indicated herein are based on material conditioned in a controlled atmosphere of 23 +/- 2 °C and 50 +/- 5 % relative humidity for not less than 24 h prior to testing and tested under the same conditions unless otherwise specified.

Procedure

1. Age test panels according to the relevant material specification.
2. Shot blast the test panels within 30 to 35 seconds with 2 kg of the shot using an air pressure of 2 bar (setting) at 23 +/- 3 °C.
3. Fully immerse test panels in water bath for 72 h.
4. Remove test panels from water bath and repeat step 2 within maximum 1 h after water immersion.

Evaluation

Only removal of coating down to substrate is to be noted, i.e. enamel to substrate, enamel and primer surfacer to substrate, enamel and primer surfacer and stone chip protective material to substrate.

Notes:

1. For special tests (e.g. Initial Sample) perform the test in triplicate and average the results. This is to minimize variations in test results.
2. The stone chip resistance tester must be checked periodically for effectiveness. If necessary, the air pressure should be adjusted to bring in line with the results found with the equipment held by the Materials Laboratory of Product Engineering.
3. To avoid aerodynamic resistance ensure that the end of the flexible outlet has a ground clearness of at least 50 mm.
4. Discard shot and replace by new unused shot after using 100 times.

Chemicals, materials, parts, and equipment referenced in this document must be used and handled properly. Each party is responsible for determining proper use and handling in its facilities.