

**RESISTANCE OF PAINTED PLASTIC PARTS TO
HIGH PRESSURE CLEANING OPERATIONS**

Application

This procedure defines the test equipment and test method for the resistance of painted plastic parts (e.g., bumper bars, mirror housings, radiator grills) against high pressure cleaning processes.

Equipment Required

High Pressure Cleaning Equipment

Frank Type HW 810 DFS or equivalent

Source: Frank'sche Eisenwerke AG
D-6340 Dillenburg/Hessen

- burner nozzle type 60 S 1.1.
- flat water spray nozzle type 174 MEG 2506

Moving Head - Method B only

Source: Firma
Kunze Maschinenbau Gmbh
D-6091 Drebur

Jet type 2506
Angle 25°
Diameter 0.6 mm

Settings - Method A

Water temperature 70 +/- 2 °C
Jet position Perpendicular to specimen

Date	Action	Revisions
2001 04 10	Revised	Editorial – no technical change A. Cockman
1992 01 22		

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Settings - Method B

Water Temperature	80 +/- 2 °C
Moving range	20 +/- 10 mm from center
Moving cycle	60 cycle/sec
Moving direction	parallel to specimen
Jet position	Perpendicular to specimen

	Method A	Method B
Test pressure (kPa)	3000 +/- 50	6000 kPa
Distance to part (mm)	50 +/- 3	100 +/- 3
Testing Time (s)	60 +/- 3	120 +/- 3
Water flow (L/h)	600 +/- 30	750

Note: All settings must be measured immediately behind the nozzle.

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. The equipment is filled with water without any additional cleaning agents and heated.
2. Before testing the equipment must be adjusted to the required test pressure for the specified distance.
3. The gun with the nozzle is fixed to the required distance from the nozzle to the painted surface which is to be tested. The jet of water has to be directed vertically onto the painted surface.
4. Spray water for the specified length of time.
5. The surface is dried and evaluated after cooling to 23 +/- 2 °C.
6. Report any failure (e.g., loss of gloss, loss of adhesion, surface deterioration).

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.