

**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:**

Source: Walter Cleaning Systems
Neue Heimat 16
74343 Sachsenheim-Ochsenbach
Germany

Or equivalent instrument suitable to provide the required temperature, pressure and flow rate of water, with a fixed or moving head/sample.

Jet Type & Source: QVVA 2506
Spraying Systems Company
See the website <http://www.spray.com> for the local agent.

Or equivalent.

Scriber/Knife Type:

See FLTM BI 106-1, section "Apparatus required"

Settings**Method A, fixed jet:**

Jet position	Perpendicular to specimen
Water temperature,	70 °C +/- 2 °C
Distance of nozzle to specimen	50 mm +/-3 mm
Water pressure,	3000 +/-50 kPa
Testing time	60 seconds, +/- 3 seconds
Water flow rate	420 litres/hour minimum

Date	Action	Revisions	Rev 03
2018 02 09	Revised	Updated equipment and cutter section, added Method C	M. Corley, FoE
2017 06 09	Editorial	Corrected typos	L. Soreide, NA
1992 01 22			

**Method B, moving jet.**

Jet position	Perpendicular to specimen
Water Temperature	80 °C +/- 4 °C
Distance of nozzle to specimen	100 mm +/-3 mm
Water pressure,	6000 +/-50 kPa
Moving range	30 mm +/- 10 mm from center, total traverse 60 mm
Moving cycle	60 cycle/minute
Moving direction	Parallel to the X scribe on the specimen

(The lines of the X scribe are Northeast to Southwest. The longer axis of the spray fan pattern is East-West, and the direction of movement is North-South.)

Testing time	120 seconds, +/-3 seconds
Water flow rate	610 litres/hour minimum

Method C, fixed jet, high pressure

Jet position	Perpendicular to specimen
Water temperature,	25 °C +/- 5 °C
Distance of nozzle to specimen	75 mm +/-3 mm
Water pressure,	6000 +/-50 kPa
Testing time	60 seconds, +/- 3 seconds
Water flow rate	420 litres/hour minimum

Note: The water pressure and water temperature settings must be measured immediately behind the nozzle.

Conditioning and Test Conditions

All test values indicated here 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, Methods A & B

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 and for the specified distance.
3. Scribe the panel with an X scribe (metals, thermosets) or knife (thermoplastics) , over the whole area to be exposed to the water jet.
4. 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.
5. Spray water for the specified length of time.