



SAAB

RAIN EROSION TEST FACILITY



RAIN EROSION

Water drops striking a surface at high speed may over time cause severe damage. Investigate your material or coating in the Saab Rain Erosion Test Facility.

When water drops strike your product at high speed, materials or coatings you expected to be tough and enduring may over time get erosion damage. Cracks in coatings will increase the risk of such erosion.

Your product may be a part of an aircraft or missile. Or the blade of a wind power installation. But the environment it meets may be harsh.

Saab offers you the opportunity to test the resistance of your material to rain. Verify that your material meets expectations or that you at an early stage discover such problems and can avoid costly repair of a wide spread product.

Our rain erosion facility is a unique facility and can test the ability of any material, including advanced composites, to withstand rain at high speed.

The rig consists of a horizontal rotating asymmetrical arm in a cylindrical bay. The rain is distributed via oscillating nozzles. The rig is mainly used to test the resistance of non-metallic materials to rain at high speed.

Test specimens subjected to rain at high speed:

Material

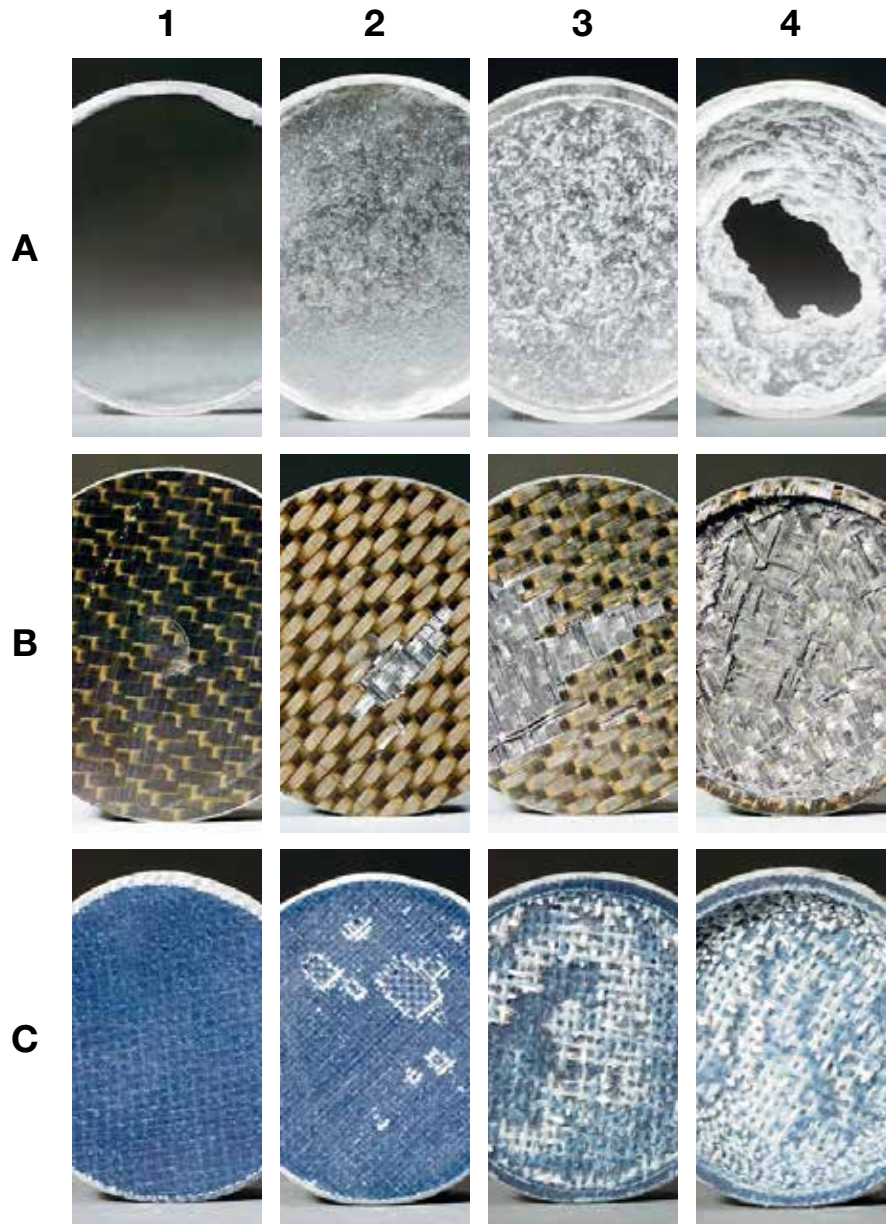
- A. Plexi Glass
- B. Composite
- C. Glass Fiber

Test case

- 1. Reference
- 2. Low: 100 m/s, 1.5-5h
- 3. Medium: 200 m/s, 5 min
- 4. High: 300 m/s, 5 min

Drop size: 2 mm

Rain density: 24 mm/h



Technical data

Dimensions	
Arm radius:	2.19 m
Number of rain generators:	6
Test objects:	diameter 50 mm (standard)
Performance	
Speed range:	0 - 300 m/s
Drop size:	1.2, 1.6, qnd 2.0 mm (Mean diameter)
Rain density:	From 1.4 mm/h to 35 mm/h depending on drop size
Attack angles for test objects using standard holder:	90°, 60°, 45° and 30°

Specifications subject to change without notice

Miscellaneous

- Test specimen holders for specific requirements can be designed and manufactured
- Test monitoring by stroboscope and synchronized camera