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TECHNICAL REPORT No: MAN194099-001



Report No: MAN194099-001
Issue No: 1
Date Tested: 13/09/17
Date Reported: 25/09/17
Purchase Order: Pro-forma

Pencil Hardness of Ceramitech 9H Plus in general accordance with ASTM D 3363-05

1. Test Conditions

A sample of Ceramitech 9H Plus was submitted to SGS United Kingdom Ltd by [REDACTED] for pencil hardness analysis in accordance with **ASTM D 3363-05**. The material was submitted as test plate coated with the material. The coated test plate was free issued by the client for analysis, having been prepared in accordance with the manufacturers recommendations. The pencil hardness was tested on the plate after being conditioned in a controlled laboratory at $23 \pm 2^{\circ}\text{C}$ and $50 \pm 5\%$ relative humidity for a minimum of 16 hours.

- **Tester:** Elcometer 501 Pencil Hardness Tester
- **Pencil:** 9H
- **Test Temperature:** 22.9°C
- **Relative Humidity:** 49.1%
- **Stereoscope:** Leica S8APO
- **Magnification:** x10
- **Apochromatic Lens:** 0.63

2. Results

The 9H hardness pencil was drawn across the coating surface maintained at a constant angle of 45° and exerting a force of 7.5N (1.68lbf). Following this, the surface was examined under a stereoscope using 10x magnification.

Sample Ref	Lead Hardness	Result
Ceramitech 9H Plus	9H	The pencil does not scratch the film




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Technical report by:

D.W. Lester.

D.W.Lester, Project Leader

Approved by:



C.Booth, Coatings Manager