MASTER PROOFER RESEARCH AND DEVELOPMENT CENTER

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Specialist Practical Consultant for
Surface Coating (Paint, LACQUERS, ADHESIVES, PRINTING INKS, ETC)
Sealants, Road and Building Materials. Rubbers. Plastics. Corrosion

Research Laboratory Report
Reference: IH-03/009

Date 10th October 2003

Subject Consolidated test of general physical properties of cement mortar treated with Labond Floorguard F701 chemical case hardener

Instigator Master Proofer In-house Test from Technical Department

Introduction Four pieces of Cement mortar Block are prepared as per following mixing formulation in according to HKHA/MTS(2002/2004) Specification Part D Clause 2.1.1

Sample ID	Mixing Description	Cement grade 300	Water	Sand	Additive(if any)
MP-F701-01	Control Mortar	3 kg	1 liter	9 kg	Nil
MP-F701-02	General concrete	3 kg	1 liter	9 kg	Nil
MP-F701-03	Moderate Slab concrete	3 kg	0.72	4.5 kg	0.36 ltr C106
MP-F701-04	Heavy Duty Concrete	13kg	3.9 liter	26 kg	0.78 ltr C106

1.0 Tests and Result

1.1 Application of F701

Physical Properties before Application of 0f F701

Sample ID	Compressive Strength at 28 days N/mm2	MOHS Hardness Diamond = 10	COE of Friction ASTM C-1028-89
MP-F701-01	31	1.25	0.5
MP-F701-02	31	1.25	0.5
MP-F701-03	55	1.68	0.48
MP-F701-04	70	1.96	0.45

Layers of Application

Sample ID	First Application	Second Application	Third Application
MP-F701-01(Control)	--	--	--
MP-F701-02	3 part water + 1 part F701	2 part water + 1 part F701	1 part water + 1 part F701
MP-F701-03	2 part water + 1 part F701	1 part water + 1 part F701	--
MP-F701-04	2 part water + 1 part F701	1 part water + 1 part F701	--

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Physical Properties after Application

Sample ID	Compressive Strength at 28 days N/mm2	MOHS Hardness Diamond = 10	COE of Friction ASTM C1028-89
MP-F701-01	31	1.25	0.6
MP-F701-02	31	1.82	0.6
MP-F701-03	55	2.10	0.6
MP-F701-04	70	2.45	0.6

2.0 Chemical Resistance Properties Staining

No staining of test sample was found after flushing of pigmented liquid for 15 minutes.

General Observation Test on Corrosion effect caused to Mortar treated with Floorguard F701

Oils

Mineral Oil	No Defects
Crude Oil	No Defects
Unleaded Petrol	No Defects

Solvents

Xylene	No Defects
M.I.B.K.	No Defects
ISOPROPANOL	No Defects

ACIDS

5% Sulphide	No Defects
5% Nutric	No Defects

BASES

5% Sodium Hyfroxide	No Defects
10% Ammonia Solution	No Defects

Conclusion:

Cement Mortar treated with FloorGuard F701 will got significant improvement on abrasion resistance and Chemical Resistance; Treated surface reach an even anti-slip condition.

Tested Conducted by

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Laboratory Officer

Approved by

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Quality/Technical Representative