

Mortar Tests

Table B-1

Blend ratio	NHL / Putty Lime Blends												Norm/method used for test		
	NHL 5/Putty/Sand				NHL 5/Putty/Sand				0.5/0.5/3						
	0.9/0.1/3		U.S.		0.7/0.3/3		U.S.		0.5/0.5/3		U.S.				
	Metric			Metric		Metric		Metric							
Water/binder ratio	gr	1.2		U.S.	1.2	gr	1.07		U.S.	1.07	gr	1.03		U.S.	1.03
Penetration	mm	7	Inch	9/32	mm	10	Inch	25/64	mm	11	Inch	7/16			EN459-2 P. 5.5.3
Set (beginning)	h	3.5			3.5	h	5.25			5.25	h	9.5			EN 196-2 P. 5.8
Bulk density (no curing)	kg/m ³	2105	lb/ft ³	131	kg/m ³	2040	lb/ft ³	127	kg/m ³	2030	lb/ft ³	127			EN 459-2 P. 5.8
Air content	%	0			0	%	0			0	%	3			EN 459-2 P. 5.7
Elast. Moduli	Mpa		Psi		Mpa		Psi		Mpa		Psi				
28 days		11000		1595		10020		1453		8000		1160			French Std.
6 months		16000		2320		14000		2030		13000		1885			on one coat
12 months		16510		2394		14320		2076		13020		1888			plasters
24 months		16500		2392		13950		2023		13220		1917			
Flexural Strength	N/mm ²		Psi		N/mm ²		Psi		N/mm ²		Psi				
7 days		0.4		58		0.35		50.75		0.32		46.4			As above
28 days		0.67		97.15		0.65		94.25		0.45		65.25			
6 months		1.15		166.75		1.13		163.85		0.83		120.35			
12 months		1.75		257.75		1.15		166.75		0.85		123.25			
24 months		1.55		224.75		1.2		174		0.8		116			
Compressive Strength	N/mm ²		Psi		N/mm ²		Psi		N/mm ²		Psi				
7 days		0.82		119		0.66		96		0.42		61			EN 459-2 P. 5.1
28 days		1.4		203		1.1		159		0.6		87			
6 months		4.8		696		3.95		573		2.97		431			
12 months		5.3		768		4.1		594		2.8		406			
24 months		5.25		761		431		625		2.85		413			
Permeability at complete Carb. (vapour exchange) (gr of air x m2 x hour x mmHg)		0.6		0.06		0.59		0.059		0.63		0.063			Fr. Std.
Shrinkage at 28 days	mm.m ¹	0.25	%	0.25	mm.m ¹	0.6	%	0.6	mm.m ¹	0.84	%	0.84			One coat
Water absorption at compl. Carbonation	l.h.m ²	10		10	l.h.m ²	12.3		12.3	l.h.m ²	18		18			plasters
Capillarity at compl. Carbonation	g.min	9.5		9.5	g.min	10.2		10.2	g.min	13.75		13.75			

NOTE : NHL 2 blend tests were not conducted as this product should not be blended.