

Long-term exposure of maxit floor 4610 to chemicals

The levelling material maxit floor 4610 is cast in mortar prisms with a dimension of 40x40x160 mm. The prisms are allowed to harden for 28 days. The test pieces (three in number) are then immersed in water. After 28 days in water the test pieces are removed. Compressive and tensile strength are determined immediately after drying the test pieces. After performing the test, the penetration depth of the chemical (liquid) is determined

Chemical resistant table

Chemical (liquid)	Compressive strenght, in N/mm ²	Tensile strength in N/mm ²	Penetration depth, in mm	Comments
0-sample not exposed	48*	11		* the compressive strength in the test was found higher than the standart values
Standart value	35	10		
<u>Solvents</u>				
Water	35	9	5	Residual porosity
Benzene	21	5	10	
White spirit	18	3	7	
Xylene	22	6	5	Test pieces dried rapidly
Acetone	24	6	5	
Thinners	17	4	7	Plastic leached from the test pieces
<u>Alcohols</u>				
Ethylen glyco (clear glycol)	14	11	3	Surface became dark
Ethanol 96 %	35	6	7	
<u>Oils</u>				
Diesel oil	32	8	20	Surface became dark
Motor oil	39	12	12	Surface became dark
SAE 10 - 30				
Hydraulic oil	37	11	13	Surface became dark
Vegetable oil	33	9	10	Surface became dark
Cutting fluid concentrated	28	9	13	Surface became dark
Brake fluid	44	12	3	Surface became dark
<u>Alkalis</u>				
Ammonia 10 %	24	4	5	Residual softness
Ammonia 5 %	33	8	5	
Ammonia 1 %	35	10	3	
Sodium hydroxide 40 %	21	8	5	Surface became dark
Sodium hydroxide 10 %	29	8	4	
Potassium hydroxide 10 %	28	6	4	
<u>Acids</u>				
Hydrochloric acid 37%				test pieces completely decomposed
Hydrochloric acid 20 %				
Hydrochloric acid 5%				
Hydrochloric acid 2%				
Latic acid 5 %				
Latic acid 2 %				
Latic acid 1 %				
Formic acid 5 %				
Formic acid 2 %				
Formic acid 1 %				
Sulphuric acid 40 %				Test pieces expanded to douple their Volume
Sulphuric acid 5 %				
Sulphuric acid 1 %				
Butric acid 2 %				
Butric acid 1 %				
Nitric acid 5 %				
Nitric acid 1 %				
Acetic acids 5 %				
Acetic acids 2 %				
Acetic acid 1 %				
<u>Salts</u>				
NA ₂ SO ₄				not resistant