Waterproofing : SecoFLEX-data

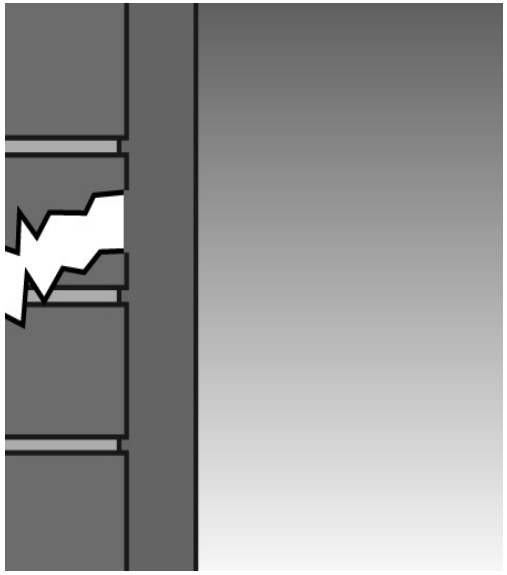
- SecoFLEX is waterproof at consumption levels from 1 kg/m² (DFT > 0.3 mm)

100 % Waterproof .. In any circumstance

Elasticity : SecoFLEX-data

- 400 % Elastic… means permanent bridging of cracks and fissures

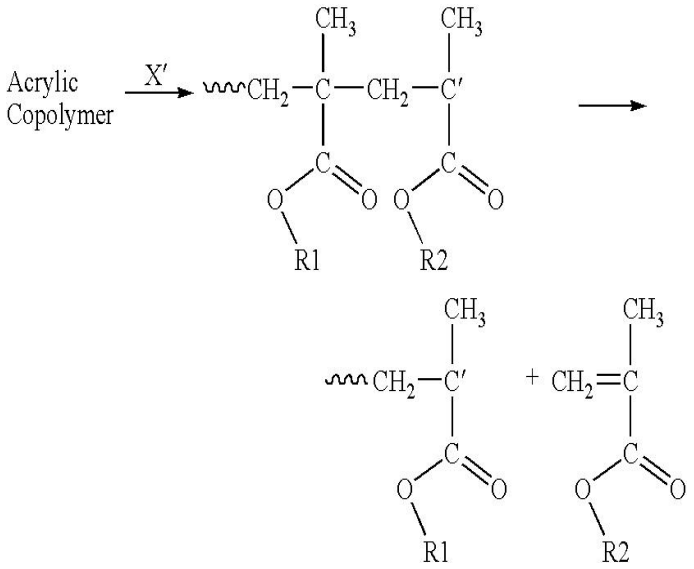
  Remains flexible at low temperatures: - 20°C



Result: An optimum wall protection system that will not peel or flake.

U.V. & alkali-resistance : SecoFLEX-data

- Achieved due to acrylic technology and high molecular weight of the binder = Minimal change of appearance during the life of the coating



Water vapour permeability : SecoFLEX-data

- Diffusion resistance value (μH2O) = 440
- Diffusion resistance W = 0.13 m

Definition :
diffusion resistance = μ-value x DFT (microns)

A low volume permeability gives secoFLEX its waterproof surface

High water vapour diffusion allows secoFLEX to "breathe" – allowing moisture out

Influence of chloride on the corrosion of concrete

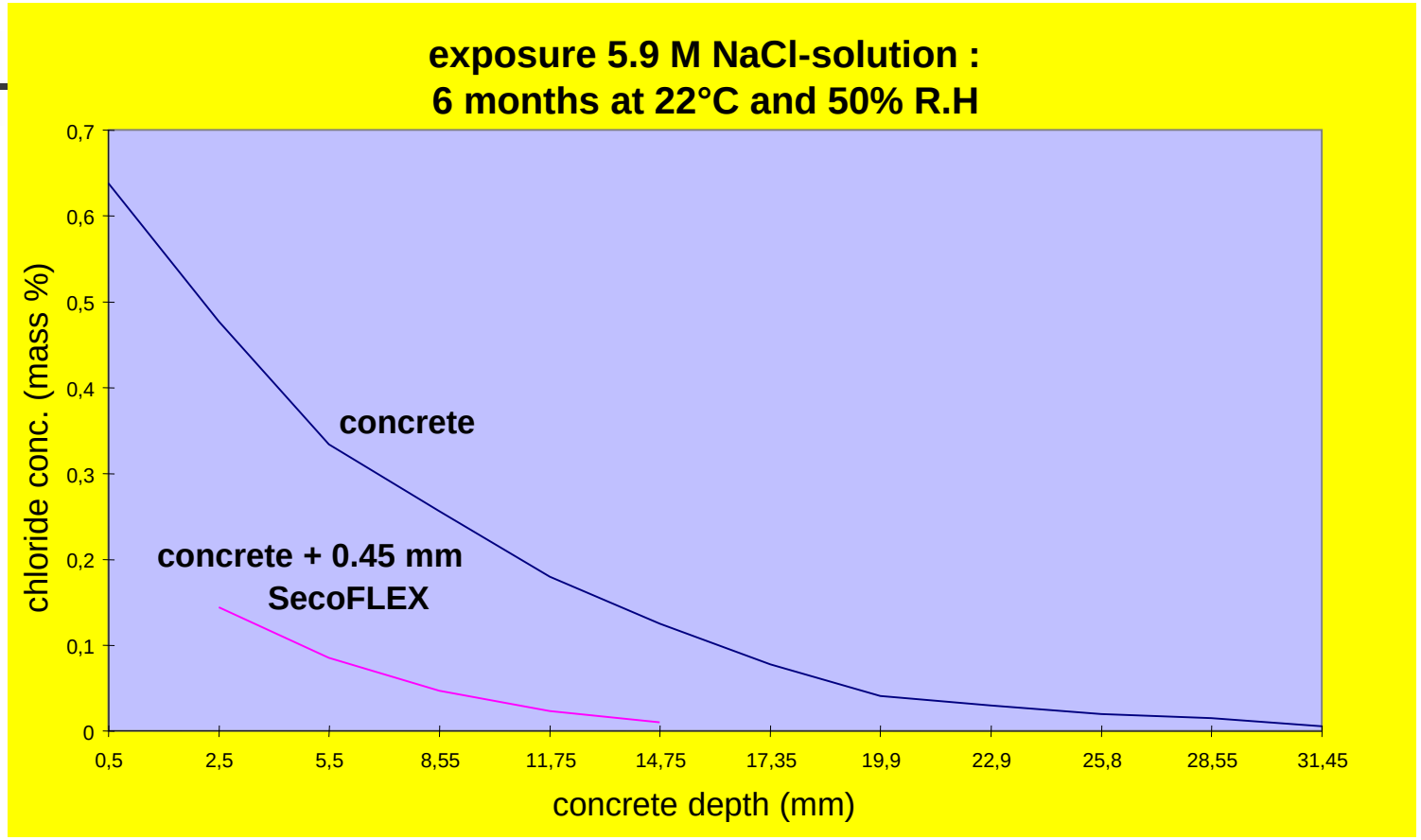
- Chloride can enter the concrete or by environmental reasons (effect of coastal exposure , use in winter time of wet stray salts splashing on the concrete) or by use of hygroscopic salts i.e. calciumchloride to give the concrete a faster hardening
- The effect of chloride getting into contact with steel has 2 major impacts :
  - An ongoing corrosion process is taking place
  - Hydrogen gas is evolved making the steel brittle thereby reducing its reinforcement properties

Diffusion of chloride in concrete (41MPa) Exposure conditions : 22°C / 50% R.H.
Exposure time : 6 months Exposure medium : 165 g/l NaCl-solution

system A : concrete
system B : concrete + 1.1 mm Pegacrete + 0.45 mm SecoFLEX

concrete depth (mm) system A	chloride-content (mass%)	concrete depth (mm) system B	chloride content (mass%)
0.50	0.638		
2.50	0.477	1.45	0.135
5.50	0.334	4.55	0.093
8.55	0.256	7.80	0.053
11.75	0.180	10.80	0.029
14.75	0.125	13.20	0.014
17.35	0.078	15.40	0.008
19.90	0.041		
22.90	0.030		
25.80	0.020		
28.55	0.015		
31.45	0.006		

Diffusion profile of chloride in concrete



SUMMARY – How secoFLEX exceeds ordinary paint

Basic requirements

- W(CO_2) > 50 m
- protection against chloride-diffusion
- high elasticity
  good low T flexibility
- U.V.& alkali-resistance
- W(H_2O) < 0.4 m

SecoFLEX data

- W($CO_{2,\ 300\ micr.}$) = 615 m
- 0.45 mm secoFLEX = 12-16 mm of concrete
- 400 %
  - 20°C / + 20°F
- OK
- W(H_2O, 300 micr.) = 0.13 m