

Boosting Barrier Properties of Protective Coatings using Barrier Talc

Talc is an interesting filler to improve the surface resistance of your coatings or personal care products. In a collaboration project with Mondo Minerals, VLCI evaluated their talc against talc products from other sources. Superior barrier performance was achieved with the barrier-talc from Mondo. We can help you applying this in your formulations.

What is barrier-talc?

Mondo barrier-talcs rely on their superior crystal platy structure, and are therefore preferred for anti-corrosion performance: the flat and platy particles overlap, which helps preventing the water from going through the coating.

What are the benefits related to protective coatings?

From VLCI's research, it was shown that barrier performance is significantly improved by the platy and highly hydrophobic character of barrier-talc. The study was performed via Electrochemical Impedance Spectroscopy (EIS), in epoxy coatings, based on the different talcs. The performance differences are highlighted in Figure 1 below:

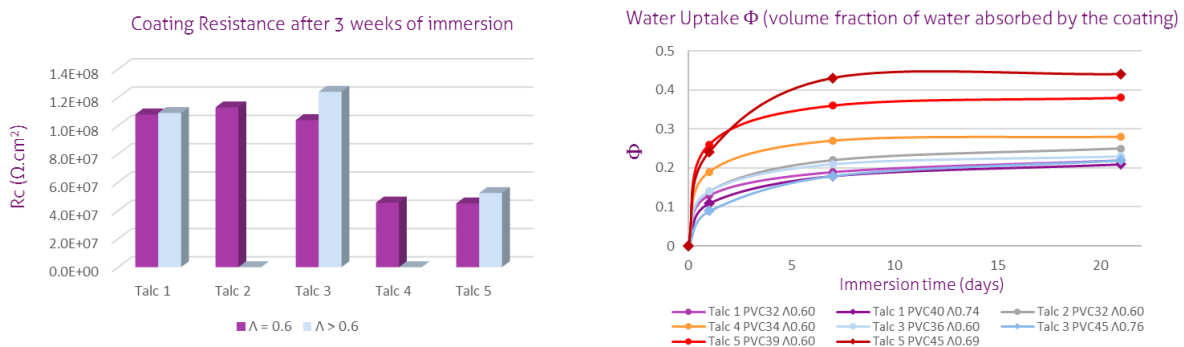


Figure 1: Barrier Performance in Epoxy Coatings (Talc 1,2 and 3 from Mondo Minerals)

What are the targeted product developments?

From high PVC primers to low PVC topcoats, solvent- or water-based systems, we help you to effectively incorporate and assess barrier-talc in your final formulation.

For whom will this be interesting?

Anyone interested in incorporating these barrier-talc products in protective coating formulations and targeting superior barrier performance while optimizing final coating costs.