

ORGANIC COATING DEVELOPMENT AND CHARACTERIZATIONS

Purpose

Organic coatings or polymeric materials can be characterized in order to help in the selection of the best products or to understand specific behaviors / failures under various solicitations. CRM Group has a great expertise in the development and analysis of organic materials and the large range of equipments allows a full screening of properties.

Available equipments

Analytical techniques to characterize paints and polymers : FTIR spectroscopy, UV-visible spectrophotometry, Differential Scanning Calorimetry, Dynamo-Mechanical Analysis, Rheometry, Microscratch resistance, Friction coefficient, Wettability/Surface energy, Profilometry and Roughness analysis, Colorimetry (various geometries), Radiative properties (solar reflectance, thermal emittance, Solar Reflectance Index – SRI).



FTIR spectroscopy



DSC

Durability testing

Corrosion chambers (Neutral Salt Spray Test, cyclic corrosion tests in spray chamber, water condensation test, climatic chambers with various available cycles in temperature and humidity) and UV weathering chambers (QUV, Xenon test, ARTACC).



Corrosion chambers



QUV

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OC Application and Curing

Lab-scale ovens for paint curing : Hot air convection oven, Induction oven, UV lamps, Electron Beam chamber.



UV lamps



Induction furnace



EB machine



Hot air oven