

Ready for Coil Coating Future Technology



To meet our customers' demands and live up to their future expectations, Evonik's Technical Service group for DYNAPOL® and VESTICOAT® UB coating resins invested in a NIR® (Near Infrared) Coil Technicum from AdPhos, Bruckmühl (Germany), a leading supplier for modern NIR coating lines. For high speed application of coil coating paints this new equipment represents the latest in paint technology.

The NIR^{\circ} Coil Technicum allows to determine the NIR parameters for industrial production lines under laboratory conditions. The focused stoving times range from 2.5 – 4 seconds with peak metal temperatures of 200 – 250°C.

The good news is: The conventional chemistry works! With DYNAPOL[®] and VESTICOAT[®] UB polyester binder resins the high curing speeds of continuously running NIR lines can basically be accomplished by the already well established chemistry (melamine or polyisocyanate systems). Compared to other modern curing systems (e.g. UV-hardening), only some NIR specific adjustments of the paint formulations are necessary, fast industrial implementation will be the benefit.

Since the delivery and startup of NIR[®] Coil Technicum extensive test series and paint formulation works based on our DYNAPOL[®] polyester resins are running with the objective to support our customers in entering into this new technology quickly and to extend one of our most important factors of success: service. Beside supplying DYNAPOL[®] coating polyester resins and providing specific NIR paint starting formulations, in future it will be possible to extrapolate our optimized curing process parameters to industrial coating lines by using particular AdPhos designed software.

Successfully completed test series for HDG primers and high gloss and flatted coil coating top coats for steel and aluminium can be introduced to our customers.



Left:

Interior view - High gloss reflector plates with NIR emitting quartz lamps

Right: NIR[®] Coil Technicum lab equipment

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