

INVENTING **SUSTAINABLE MOBILITY** FOR YOU



A Desmodur[®] eco success story: First-ever locomotive protected by sustainable bio-based coating

How Covestro helped to reduce the use of fossil resources for locomotive coatings without any compromise on performance.

Desmodur[®] eco



High performance enabled by nature

Sustainable coating for sustainable transport

The transport industry is looking for concepts to decrease its carbon footprint and improve vehicle sustainability. In this context, renewable coatings can be used to protect any means of transport more sustainably and thus reduce the carbon footprint, e.g. in transporting goods. Rail vehicles are no exception. Transporting passengers or cargo by rail is already a more sustainable form of mobility than road transport, for example. But the sustainability of rail vehicles can be improved even further, as the collaboration between Lankwitzer, Newag and Covestro proved. Its aim was to reduce the use of fossil resources for locomotive coatings through the bio-based hardener Desmodur® eco N 7300.

Renewable coating bring added value

Lankwitzer's customer Newag, a leading Polish rail vehicle manufacturer, was very interested in trying this bio-based coating on one of its diesel locomotives. Newag was driven by the desire to bring added value to its customers and saw renewable coatings as a key selling point. Mateusz Fedko, the Newag Project Manager: "A new coating has to fulfill customer specifications, and when it adds value as well, like this bio-based clear coat, this certainly is a great way to differentiate us from our competitors."

The coating application went as smoothly as the company's standard clear coat does. Results from tests performed by Lankwitzer and Covestro have demonstrated the clear coat's excellent performance and proved that it complies with rail industry specifications. Besides a 70% higher scratch resistance and gloss stability vs. standard systems, also resistance properties regarding graffiti removal agents are excellent. And Michael Voxbrunner (Lankwitzer) points out: "I'm sure this bio-based clear coat will bring added value to our customers in other industries as well."

For years to come the locomotive from Newag will demonstrate the capacity of PUR coatings based on Desmodur® eco N 7300 within the world of locomotive coatings – as well as our understanding of "Inventing for you".



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Improved scratch resistance

70% higher scratch resistance vs. standard system in the Amtec Kistler test (car wash simulation)



Coating supplier:	Lankwitzer Lackfabrik, Germany
Coating system:	EVOClear 294 with PH 94-0000
Locomotive manufacturer:	Newag SA, Poland
Vehicle:	Diesel locomotive 15D

In cooperation with



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