



**Bayhydur<sup>®</sup> eco**

High performance enabled by nature:  
New biobased hardener for 2K waterborne systems



# Bayhydur® eco 7190

## High performance enabled by nature: New biobased hardener for 2K waterborne systems

**Sustainability – lifecycle thinking**

Covestro pursues a holistic approach and views value creation cycles in their entirety – with sustainability in mind at all times.

Increasing reusability

End-of-life

Utilization phase

Customer operations

Enabling savings and increasing benefit

Our raw materials

Our operations

Our logistics

Enabling improvements for our partners

**PEOPLE PLANET PROFIT**

Society has generally understood the need to cut greenhouse gas emissions through reducing consumption of fossil-based resources and lengthening product life. The use of natural products (e.g., oils or waxes) to protect wood surfaces is nothing new, but the disadvantages of such systems are their lower durability, with the resultant need for frequent repainting, and their inferior performance in demanding environments. The furniture industry has been a front-runner in the implementation of waterborne solutions as an alternative to traditional solvent-borne systems. However, the sustainability of furniture can be improved even further and the use of fossil resources for wood coatings reduced as well through the biobased hardener Bayhydur® eco 7190\*. Above all, it makes biobased wood coatings possible that do not come at the expense of performance. This new product is a hydrophilic polyisocyanate based on biobased pentamethylene diisocyanate (PDI).

**Easy mixing in water phase**

**Key benefits of Bayhydur® eco 7190:**

- 66% renewable carbon content\*\* derived from non-fossil-based resources – no direct competition with the food chain
- Significant reduction in cradle-to-gate carbon footprint compared to HDI derivatives
- Low reformulation requirement (near drop-in for hexamethylene diisocyanate (HDI)-based hydrophilic trimers)
- Excellent chemical resistance
- High compatibility and easy mixing in water phase

Product technical data	
Form supplied	90% in PGDA
NCO content	~ 18%
Viscosity	~ 5000 mPa · s at 23°C
Renewable content	66%**

Bayhydur® eco 7190 can boost the performance of biobased dispersions, enabling biobased wood coatings for furniture and parquet.

\* Future global scope starting in Europe due to registration process. Product in scale-up. Samples available only in trial amounts.  
 \*\* 65 ± 3% renewable carbon, <sup>14</sup>C measurement according to ASTM-D6866 standard.



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