

In 2006 the KLP® Hybrid Polymer Railway Sleeper was introduced to the European railway market. This sleeper combines the damping derived from polymers with the elastic bending stiffness of steel. Not only is it a replacement for timber sleepers, but it has an expected design life of 50 years, outlasting timber by a factor of 2-5 times. Early in 2017, the German Federal Railway Authority (EBA) granted type approval for operational testing of KLP® Hybrid Polymer Transoms Types 204 and 401, each having been specially developed for their unique application.

**Hybrid polymer sleepers for light rail, tunnels, viaducts, bridges, passenger and goods transport**  
KLP® Hybrid Polymer Sleepers (with steel reinforcement) offer a combination of the required stiffness, excellent vibration cushioning and sound dampening (typical noise reduction of 3-5 dB on bridges). High durability and strength are achieved due to the ductility of hybrid polymer in combination with the strength of steel. Further advantages include low life cycle costs and weight reduction and when dealing with low ballast depth, the high dampening characteristics of the hybrid polymer sleeper compensate for the decreased elasticity of the ballast. By this you can achieve a desirable continuous track stiffness. The city of Amsterdam acknowledged these benefits when they approved the use the KLP® Hybrid Polymer Sleepers in 2015 to replace parts of their light rail infrastructure.

#### **Industry & life cycle cost reduction in track**

KLP® Hybrid Polymer Sleepers are a sustainable alternative to concrete and timber sleepers. These polymer sleepers have high chemical resistance to moisture, acids and salts, compensate for the reduction in elasticity of the ballast due to ballast contamination, do not break in the event of derailment and have high lateral resistance, making them ideal for sharp turns. In addition, the KLP® Hybrid Polymer Sleeper ensures a much lower maintenance frequency. They have already proven themselves in track through multiple installations across Europe. A few examples are for Corus-Tata Steel in the Netherlands, Voestalpine Steelworks in Austria and Vattenfall Mining in Germany.

#### **Australian representative Link Asia Pacific**

In 2015 Lankhorst appointed Link Asia Pacific as their sole agent for Australia and New Zealand. Several industry experts and track owners showed their interest at the joint stand (Lankhorst Engineered Products and Link Asia Pacific) at the recent AusRail2017 conference and exhibition in Brisbane. Interested to know more? Contact Link Asia Pacific via email: [Gerhard@linkap.com.au](mailto:Gerhard@linkap.com.au)



*KLP® Hybrid Polymer Sleepers installed in Amsterdam (light rail)*



*KLP® Hybrid Polymer Turnouts at Corus-Tata Steel, Netherlands*