INFO

Coil is the word used for metal strip and wire windings and the technical term applied to rolls of steel and steel wire. Strip coils are used frequently for the transport of steel and alloys from the manufacturers to the processing plants (e.g. in the automotive industry). Coils produced in rolling mills can have weights of up to 45 t.

INSPIRATION BEATS PERSPIRATION

AN INNOVATIVE MATERIAL DEVELOPMENT FROM POLYTEC OFFERS PREVIOUSLY UNATTAINED HEAT RESISTANCE

At the beginning of 2015, POLYTEC INDUSTRIAL received a customer enquiry, which with regard to the heat resistance of polyurethane elastomers entailed a technological quantum leap. The target was 150°C in combination with loads of up to 40t. To date, the limit for polyurethane elastomers was around 80°C, but nonetheless the developers at the location in Marchtrenk, Upper Austria did not break out in a cold sweat.

Work started immediately on the construction of a special jig for the simulation of the desired temperature and pressure loads, and thus the creation of a reliable testing environment. At the same time, in a move parallel to the development and testing phase at POLYTEC ELASTOFORM in Marchtrenk, field testing was initiated at a leading steel manufacturer and logistics company.

WHY STORE COILS WEIGHING TONNES ON PLASTIC PARTS?

In the case of both high-quality, steel sheet for the automotive industry and aluminium sheet, it is essential that the raw material remains unblemished. Every metre that cannot be used for the finished product due to indentations caused by incorrect storage represents a serious loss. Moreover, when an aluminium coil is stored on an underlay of the same material, it is frequently the case that the first fifteen windings are unsuitable for the manufacturing process. With a diameter of up to 2,400 mm, this constitutes material wastage of over 100 m. Conversely, storage on mats made from TECTHAN® polyurethane reduces these losses to a minimum.

In recent years, POLYTEC INDUSTRIAL has completed numerous successful projects that assist the correct storage and safe transport of coils. For example, the use of TECTHAN® polyurethane prevents abrasive corrosion and thus protects valuable metres of this first class material.

MATERIAL HIGHLIGHTS

- Cut-resistant
- Oil-resistant
- Heat resistance of up to 150°C
- Absolute flexibility with regard to the desired geometry

HOLISTIC SOLUTIONS FROM POLYTEC INDUSTRIAL

High-quality sheet is cold rolled, while aluminium coils leave the mill with a temperature of around 150°C. As the sensitive coil cannot be simply placed on the ground to cool off, protective storage is especially important in this phase. Our heat-resistant parts made from TECTHAN® polyurethane facilitate a smooth production sequence, as the coils do not have to remain in the plant for cooling. Instead, they can be placed on the plastic mats immediately and transported to their storage location.

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