



ARENA TÉCNOLÓGICA: SCHMOLZ + BICKENBACH

Thermodur E 40 K Superclean – Novo aço ferramenta para injeção de alumínio sob pressão

Daniel Frie

Daniel Frie trabalha para a DEW como Key Account Manager em negócios de aços ferramenta nas Américas desde o primeiro semestre de 2019. Graduou-se em Metalurgia pela RWTH de Aachen e UPM de Madrid antes de iniciar sua carreira na assistência técnica de aços ferramenta para os mercados da Europa e Ásia. Após sete anos na área técnica, Daniel Frie desenvolveu a função de gerente de produto na EDRO antes de voltar à DEW no começo de 2019 para assumir a parte comercial para o continente americano.

Resumo de palestra: The demand on requirements of suitable materials for hot work tool steels used in the die casting industry is still increasing. Especially in terms of efficiency the demands are reaching new levels as the customers long for longer lifetimes of the dies. As the die casting industry is growing and gaining in importance in the automotive industry, DEW as a steel producer cares about the demands of our customers. For that reason we are focussed on the demands of the die casting industry and want to support our customers. The most critical factor for the die material is the heat checking resistance due to permanent cyclic load during heating and cooling phases of the cavity surface during spray cooling and injection of liquid metal. In roughly 80 % of die casting failures heat checking is the main reason. Thus the target of the development of the new die casting tool steel Thermodur E 40 K Superclean was achieving the maximum resistance against thermally induced heat checking. An increasing resistance against heat checking strongly depends on a high toughness at elevated temperatures as well as a high temperature stability. Due to the perfect combination of these main properties Thermodur E 40 K Superclean offers the best resistance against heat checking. This fact is underlined by several investigation results that are demonstrated in the presentation in comparison with standard hot work tool steels. After several positive trials with different end users around the world DEW now

takes the opportunity to introduce Thermodur E 40 K Superclean officially in the Brazilian die casting industry.