

Innovations and latest plant technology

AMAG success has its roots in constant endeavours aimed at enhanced performance. Innovations, the latest plant technology and ongoing improvements form the basis for success.

In combination with a continuous improvement process (CIP), which has received numerous awards, targeted R&D creates an inspirational climate of innovation at AMAG. Comprehensive know-how and long-term experience thus combine to provide creative solutions.

In recent years, R&D activities have been the object of significant intensification and as a direct result important investments have been initiated in the very latest plant technology. Consequently, a series of new top products have been launched onto the market, while other items already enjoying sales success have been further upgraded.

AMAG Titanal®

For over 25 years, AMAG Titanal®, an extremely high alloyed material from the 7xxx family, has been a best seller in the sports sector, where maximum strength is required. In 2010, this success was actually measurable in the form of Olympic medals, as all thirty medal-winners in the alpine disciplines in Vancouver raced to victory using ski brands that employ AMAG Titanal®.

AMAG TopForm®

This long-term know-how in the area of high-strength 7xxx alloys is also introduced into the new AMAG TopForm® UHS (Ultra High Strength) product group. An innovative combination of material and production process facilitates the forming of these alloys, which are basically of lower ductility, into complex components.

Since its market launch, AMAG TopForm® SPF (Super Plastic Forming) has rapidly established a position as the benchmark material for superplastic applications.

AMAG TopClad®

The AMAG TopClad® family is ideal for applications requiring multilayer sheet materials.

AMAG MultiClad®

Just recently (please see AluReport 2/2009), five-layer AMAG MultiClad® with a high-strength 7xxx alloy core was launched onto the market for especially light brazing applications (e.g. in cooler production).

AMAG TopGrip®

AMAG TopGrip® is a treadplate that has been developed in order to provide maximum anti-slip characteristics and which stands out due not only to its functional capacity, but also its special aesthetics. This product has met with a high degree of acceptance in the cable car sector where the risk of ski boots slipping has been reduced markedly. AMAG TopGrip® is therefore also the first choice when it comes to industrial plant platforms and stairs, as well as in wind power plants, where slippery conditions predominate owing to lubricants and moisture.

AMAG ProCath®

AMAG ProCath® makes AMAG a special supplier of cathode sheets and complete elements for zinc electrolysis plants. In line with customer requirements, the cathode sheet can be supplied with edge strip, liquid zone protection and stripping aids. This ensures longer sheet service life during electrolysis operation.

AMAG TopPlate®

Extensive development work and investments in recent years have turned AMAG into an established supplier of rolled plates, which among areas are employed in the

aerospace sector. However, the aluminium plates for applications in the mechanical engineering or mould and die production sectors do not always require a rolled grain structure. It is often better (residual stress-free) and cheaper, when they are produced directly from cast ingots. AMAG is currently installing a new production unit for sawn and milled cast and rolled plates and at the end of 2010 these will be available to customers under the product name, AMAG TopPlate® (please see a detailed article on pages 14/15 of this AluReport).

As a result of its long-time experience with bright rolled products, AMAG is always on the pace when it comes to demanding surfaces. Accordingly, the next AMAG product development step involves a move in the direction of automotive outer skin quality. To this end, the plant pool is to be enlarged to include a strip passivation line, which will become operational at the end of 2011 (see the article in this AluReport on page 11).

AMAG TopCast®

Primary material quality makes a decisive difference with regard to virtually all AMAG's top products. The optimized process chain for the processing of important reusable scrap into top class rolling ingots and casting alloys constitutes a fundamental AMAG strength. Therefore, an AMAG TopCast® product line was recently introduced, which provides AMAG's caster customers with top recycling alloys that are precisely matched to the respective application. The manner in which the appropriate alloy is designed with the help of the newly developed AMAG TopCast® Alloy Designer software tool is explained on page 8 of this edition of AluReport.

AMAG's innovation drive is to be continued in a move aimed at further consolidating the company's position as a premium supplier. The foundations have been laid and will allow the presentation of another impressive selection of new products at the Aluminium Essen 2012. ■