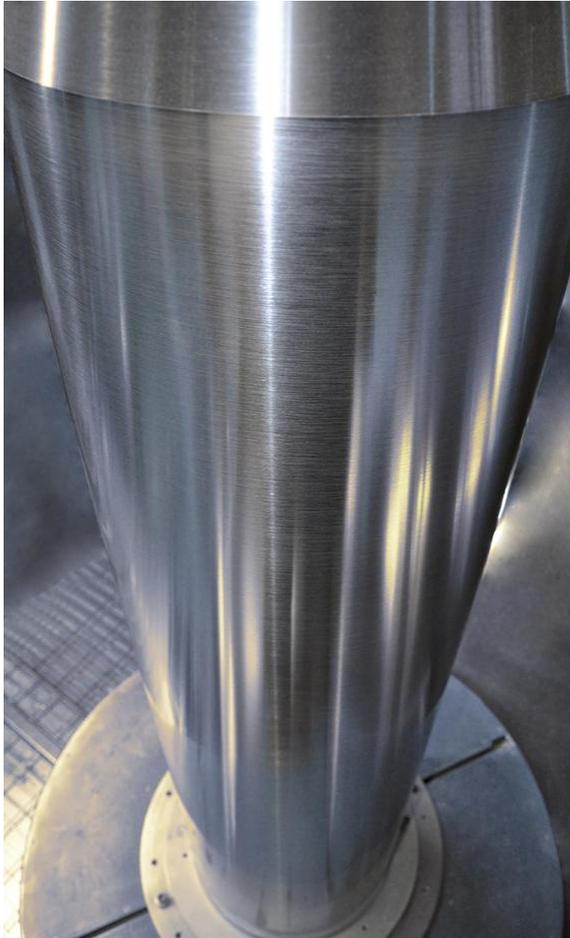


# NOBLE METALS



**Danner, ACT<sup>®</sup> coated with platinum and then fully polished**

## ACT<sup>®</sup> Specialist Products For the glass industry

**ACT<sup>®</sup> Danner Sleeve and Ribbon Block**

**ACT<sup>®</sup> Pin Stirrers, Lip Stones and Tweel**

**ACT<sup>®</sup> Feeder Chamber and Screw Plunger**

Competition is fierce in the special glass industry. The objective is to achieve the best quality product, which will deliver the optimum profitability. Performance of consumable ceramics has improved, but this will never be enough for manufacturers aiming for the highest quality standards.

ACT<sup>®</sup> platinum coated ceramics consist of a thin layer of platinum or 10% rhodium/platinum applied to the surface of the ceramic. Thickness varies between 200 and 400 microns. The coating gives complete corrosion resistance against attack of molten glass. It provides 100% shape retention of the substrate for the lifetime of the coating. More importantly, it improves the final product quality. Less ceramic particles dissolve into the finished product and the glass is not in contact with ceramic surfaces in the critical zone prior to forming.

Sintered ceramics such as zircon mullite and sillimanite are coated using a mix of flame and plasma deposition. They can be supplied as single items or sets of consumables.

The coating process is flexible. Complex shapes are protected and variable thickness is available. ACT<sup>®</sup> coatings provide protection at the glass line and against corrosive vapour condensates. ACT<sup>®</sup> coatings can be polished for exceptional glass quality requirements. Electrical suppression, as well as integrated thermocouples, is available on demand. Direct heating is also an option.

This technology applies to all types of glass, including the most corrosive.

Johnson Matthey offers full precious metal recovery with typical metal returns of greater than 95%\* for all ACT<sup>®</sup> coatings.

### ACT<sup>®</sup> Platinum Coated Ceramics

Glass type	All types, including the most corrosive
Benefits	100% shape retention for the lifetime of the coating

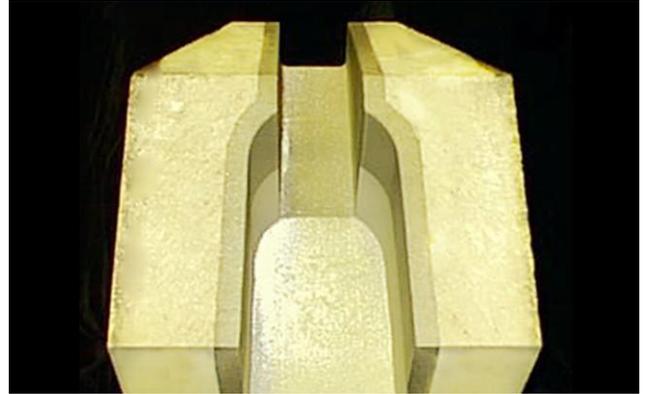
### Design

Full coating	Extending above the glass line to cover the complete glass contact area
Coating thickness	Between 200 and 400 microns
Alloys	Platinum (up to 1350°C) 10%RhPt (up to 1600°C)
Typical metal return	Greater than 95%*

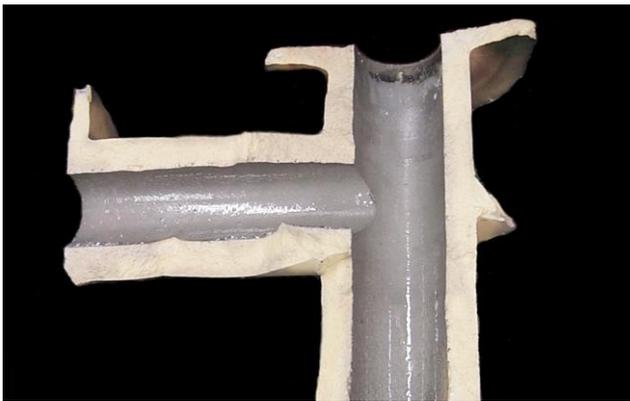
\* Based on estimated returned weight

# NOBLE METALS

## ACT<sup>®</sup> Specialist Products For the glass industry



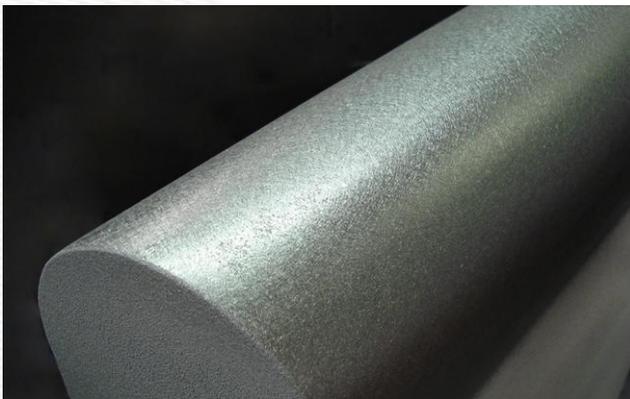
**Ribbon block, ACT<sup>®</sup> coated with a platinum/rhodium alloy**



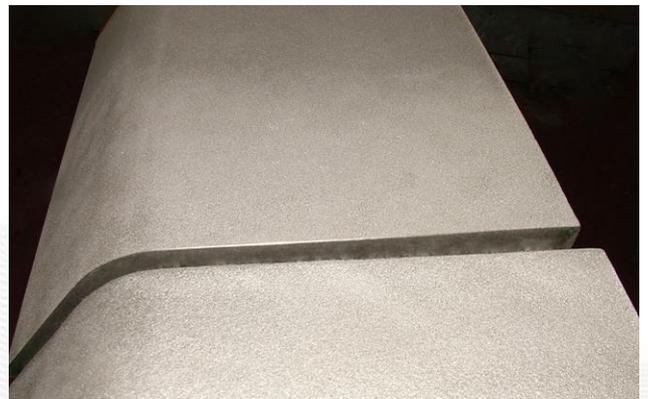
**Feeder chamber, ACT<sup>®</sup> coated with platinum**



**Stirring plunger, ACT<sup>®</sup> coated with platinum**



**Tweel, ACT<sup>®</sup> coated with platinum**



**Lip stones, ACT<sup>®</sup> coated with a platinum/rhodium alloy**

If you require more information on Johnson Matthey Noble Metals products please contact our technical support team.

**Europe**  
Johnson Matthey, Noble Metals,  
Orchard Road, Royston,  
Hertfordshire, SG8 5HE UK  
Tel: +44 (0) 1763 253000 Fax: +44 (0) 01763 25313  
E-mail: nobleuk@matthey.com

**North America**  
Johnson Matthey, Noble Metals,  
1401 King Road  
Pennsylvania 19380-1497 USA  
Tel: (1) 610 648 8000 Fax: (1) 610 648 8105  
E-mail: nobleww@jmus.com

**Asia**  
Johnson Matthey Hong Kong Ltd  
Suite 2801, Tower 6, The Gateway,  
9 Canton Road, Tsimshatsui, Kowloon, Hong Kong  
Tel: (852) 2738 0380 Fax: (852) 2736 2345  
E-mail: jmhk@matthey.com