

## Both LBMA & BIS refiners are ok, if our traceability and purity requirements are met

*Ravindra-Heraeus and Choksi-Heraeus are joint ventures with Heraeus in Germany. The JVs specialise in manufacturing high-tech precious and speciality metals products and solutions. We serve wide spectrum of industries: Automotive, Aerospace, Defence, Pharma, Switchgear, Glass and Jewellery. In this exclusive interview, Mr. Kishore Choksi, Managing Director, Choksi Heraeus and Mr. Shailesh Choksi, Managing Director, Ravindra Heraeus provide a comprehensive perspective on the opportunities in developing industrial usage of silver and platinum group of metals. Read on....*



How do you rank the four precious metals (Au, Ag, Pt and Pd), from the usage for industrial applications point of view? And what is the single most important USP for each of these metals (we know it is the electrical conductivity for Ag, but USP for other metals are not so intuitive)?

**Mr Kishore Choksi, Choksi Heraeus (KC):** In terms of volume silver followed by palladium, platinum and gold have highest usage in industrial applications. Of course, considering metal price value-wise, palladium would be highest.

**Mr Shailesh Choksi, Ravindra Heraeus (SC):** You are right about silver with regards to highest electrical conductivity. However, silver also finds substantial use in Pharmaceutical application. Both platinum and palladium have highest use in catalytic converters for breaking down harmful gases from automotive emissions to less harmful gases. Besides, palladium and platinum also display excellent



catalytic properties for pharmaceutical applications. Like silver gold too have good electrical properties and finds wide usage in power electronic application.

**In general, what happens to demand for these precious metals that go for industrial applications when price increases sharply? Or when price volatility increases sharply? Does it affect the demand in the short / medium term?**

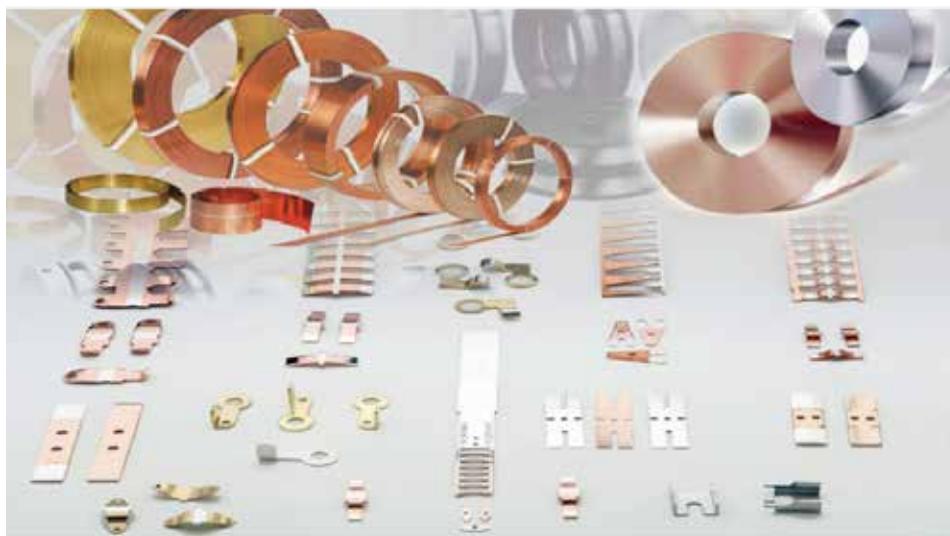
**KC:** There is obviously some nervousness amongst users when the prices are volatile. Most industrial users do not have a choice in short term and in order fulfil their production targets do not change their demand. They mitigate the risk by taking average price of a month or fix price at regular intervals. On long term if the prices do keep rising, one accelerates the innovation projects to reduce product weight and/or move on to lower priced metals. This is indeed a big challenge. If we are to consider Jewellery application also as an industrial demand ( since it is indeed industrialised ), things are bit different. Platinum

would be preferred over Gold for the price and still enjoy the higher Platinum image.

Most PGMs for industrial applications are recycled and reprocessed into fresh products. Ravindra Heraeus is focused in this recycling area remains an is the only player in India to offer both pyro- and hydro-metallurgy refining for all types of precious metals bearing catalyst.

**SC:** The quantity of precious metal employed is relatively small and does not have a huge impact on the final product. For example, a catalytic converter would have a few grams of platinum group metals having of say US\$ 100.- . However, an average car price is US\$ 20,000.-. So even if there is 100% increase in PGM price, the cost of auto catalyst jumping from \$100 to \$200 would only make a marginal impact on overall cost of the car.

**Covid-19. How severe was the demand destruction during covid-19? Which sub-sector was hit the most?**



Coming specifically to silver and India, from a slightly longer perspective (say five years), how do you see the demand for industrial products made from silver-electrical contacts, silver catalysts, silver salts and silver paste – growing in future? What are the drivers of growth? Where do you see challenges? What could be solutions?

**KC:** With major investment

**Has the demand come back to normal now? If not, how long would it take in your opinion? What factors would bring demand back to normal levels?**

**SC:** PGM demand for industrial application is majorly for automotive and pharma. Due to COVID-19 situation public transport was severely impacted. This increased the demand for 2- and 4-wheelers in recent months and consequently auto-cats. Added to this is, Bharat 5 emission standards has led to higher loading of PGM in auto-cats.

**KC:** We at Choksi Heraeus did see a panic in electrical industrial in the beginning as only essential category goods were exempted from lock-downs. So Silver contacts for healthcare related infrastructure, defence, automotive continued to be ordered and we too were allowed to continue operations. On the other hand, general construction activities slowed down and the demand for residential and industrial buildings application reduced. But by May/ June 2020 the electrical switchgear industry bounced back. In fact due to restricted imports our sales surpassed the levels of previous years. The demand from Europe and Americas did dip as the related industry in those countries were more severely hit in the pandemic.

plans by our government for infrastructure we see a minimum double digit growth in demand for silver in industrial application you named. More and more multinationals are investing in India and the existing ones have ambitious growth plans in our growing economy. The advent of GST has certainly made life simpler and transparent, with no dis-advantage to any industry due to its geographic location. Just as the growth seems attractive, the challenges are multi-fold. One cannot overlook the rising wages which necessitates enhanced productivity by innovation and automation. On a separate note, we have been protesting at various law-making platforms, against the inverted duty structure for silver metal versus the finished electrical contacts which can be imported at lower import duty rate.

**Heraeus has been a global leader in offering Master Alloys for jewellery sector. While there were specific demand pockets for Master Alloys in the past, of late, we have seen a resurgence, thanks to the entry of MMTC PAMP since 2018. Given the size and diversity of our jewellery sector, how do you see the growth potential and opportunities for Master Alloys in India?**

**KC:** In fact our Joint Venture has been producing Master



**refinery? Please give reasons.**

We would accept both categories of silver as long as it meets our stringent requirement of traceability and high purity.

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***Mr. Kishore Choksi has over 40 years' experience in precious metals industry. He obtained his engineering degree in Material Science from University of Aalen, Germany and has gained rich experience working with major precious metals industry in Europe. Guiding the users in the industry over the years he is now most sought after***

***advisor for designing materials for switching contacts.***

***Mr Shailesh Choksi too has been around for 35 years, heading the group in PGM refining and fabrications. He studied Electrical Engineering followed by Business Management. He has steered the family owned company successfully and today the companies are first address for automotive catalyst and Platinum Group Metals refining and conversion into compounds. He has deep knowledge of financing and price-risk management of Precious Metals.***

Alloys for the jewellery sector for more than a decade now, meeting the demand by domestic production. There are several other large and small producers now. We see a good growth potential for master alloys as the high Gold prices push the designers to promote lower cartage Gold jewellery, pushing up the requirement of additive base metals.

**Your company is a leader in recycling PGM scrap. India also offers enormous opportunities to recover gold and silver from electronic waste? Are you in that space? What do you see as the opportunity? What are the challenges for an organised player such as your company in capitalising such opportunities?**

**KC:** The recycling of PGM metals has been prevalent for many decades now, but gold and silver from electronic waste is not so visible, perhaps due to it being managed more by the unorganised sector with multiple small collectors.

**Recently, commodity exchanges started accepting gold and silver bars refined at BIS/ NABL accredited refiners from India as acceptable delivery? As a user, would you take delivery of these bars in place of bars from LBMA**

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