

# GENUINELY SUPERIOR

Growing demand for synthetics not a threat to natural diamonds

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**NOT UP TO SCRATCH**  
While sales of laboratory-grown diamonds are increasing, they have yet to make much of an impression on the global jewellery industry

**A**lthough the global diamond market is currently worth about \$87-billion, laboratory-grown diamonds only constitute 2% of that market, or \$1.9-billion, says New York-based independent diamond analyst **Paul Zimmisky**.

While the laboratory-grown diamond jewellery market is forecast to grow to about \$14.9-billion by 2035, it will account for only 4% of the total jewellery market in 2035 because it represents only about 1% of the current total jewellery market, even if it triples its share over the next 17 years as expected.

Therefore, as the diamond jewellery market is expected to be worth \$173-billion by 2035, expected demand for natural diamonds is hardly in its death throes.

## Structure, Inherent Value, Appearance

“The chemical structure of laboratory-grown and natural diamonds is the same, but the former can still be distinguished with certainty from natural diamonds using equipment that analyses the fluorescence, phosphorescence and other trace elements,” explains Zimmisky.

However, there are no discernable

differences to a consumer viewing the diamonds with the naked eye.

World Federation of Diamond Bourses president **Ernie Blom**, nevertheless, stresses that “they may look very similar and have similar optical properties, but . . . they are two very different products”.

Diamond Producers Association CEO **Jean-Marc Lieberherr** agrees, noting that the quick, artificial growth process of a synthetic diamond leaves distinctive marks inside the stone. While naturally occurring inclusions in a natural diamond often contain distinctive and perfectly preserved billion-year-old elements, such inclusions in synthetic diamonds “effectively constitute production defects”.

Additionally, laboratory-grown diamonds are usually treated for colour to correct distortions that were created during the industrial process.

Natural diamonds develop naturally over billions of years, which is the reason for their “inherent uniqueness”, says Blom. This natural process adds credence to their symbolic representation of, for example, romantic or platonic love, wealth or commitment, being everlasting or enduring.

“Diamonds are a store of value that doesn’t decline,” he states.

However, laboratory-grown, recycled and ethically sourced diamond jewellery producer Brilliant Earth states on its website that, while synthetic diamonds may exhibit different trace elements, these elements do not affect the appearance of the diamond. Further, characteristics that individual consumers find inherently valuable or symbolic can be subjective.

## Cost

In 2016, the cost difference between equivalent (size and colour) natural and laboratory-created diamonds was between 10% and 15%, while the difference currently is between 40% and 50%, says Zimmisky.

He adds: “With Anglo American subsidiary De Beers entering the space, the difference is likely to widen further.”

Blom says this differential seems logical and, as with any “man-made product”, laboratory-grown diamonds will inevitably become “cheaper” over time. This is because there is no limit to what can be produced, whereas mined diamonds cannot be replaced by nature.

Lieberherr adds that synthetic coloured gemstones are sold at about 10% of the value (with a difference of 90%) of their natural counterparts. “This is where we expect synthetic diamonds to stabilise as the technology matures. A natural diamond is inherently rare and precious, and will [become] ever more so.”

He notes that natural diamonds can be “out of reach for parts of the population and do not lend themselves to casual everyday wear”, which Brilliant Earth echoes. The company’s marketing adds that buying a synthetic diamond, which is visually indistinguishable from a natural diamond, opens up new markets, while appealing to more frugal individuals.

### Benefits vs Harm

Lieberherr says natural diamonds have a “very significant positive socioeconomic impact on an ecosystem of about ten-million people worldwide, including regions and communities across Africa and India”, whereas synthetic diamonds have limited positive socioeconomic impact and primarily benefit private investors.

Diamond mining “puts food on the table”, allows for the development of health and education services through corporate responsibility and social licence to operate, and contributes directly to the fiscus, Blom adds.

However, the Brilliant Earth website states that, while producers have made great strides in responsible sourcing, the Kimberley Process definition of ‘conflict free’ is narrow, as it refers only to diamonds that finance rebel movements against recognised governments, excluding diamonds “tainted by violence, human rights abuses, poverty, environmental degradation and other issues”.

“The natural diamond industry is subject to some of the strictest regulations and standards of any industry in the world,” says Lieberherr. “Conversely, the synthetic diamond industry has nearly no regulations.”

Further, Lieberherr says, in terms of environmental degradation, while mining has an environmental impact, the footprint of a diamond mine is small and the carbon emission levels for a polished carat is similar, or lower, than that of a laboratory-grown stone.

Moreover, the Kimberley Process is being reviewed, with the World Diamond Council driving meetings on the industry’s commitment to the process and strategies to advance its ongoing contributions towards peace, security and sustainable development in diamond mining communities.



**ERNIE BLOM**

Simple supply and demand theory shows that the price of natural diamonds has a firm underpinning

### Impact and Outlook

De Beers Group announced in May the launch of Lightbox Jewellery, which begins marketing laboratory-grown diamond jewellery this month.

Once fully operational, the plant will be capable of producing about 500 000 rough carats of synthetic diamonds a year.

Zimnisky believes that De Beers’ strategy is to create further product segmentation between synthetic and natural diamonds to protect the natural diamond industry, but “there certainly is a risk of losing market share of lower-price-point goods like smaller, lower-quality diamonds”.

The decision is not because of the company’s belief that consumers are trending away from natural diamonds. *Mining Weekly* reported two weeks ago that De Beers was expected to close on the takeover of Canadian-listed junior Peregrine Diamonds this month.

This acquisition is De Beers’ first upstream diamond acquisition since 2000 and, according to De Beers Group CEO **Bruce Cleaver**’s July interview with Reuters, it underlined the company’s commitment to natural diamonds, despite its decision to sell synthetic gems.

Lieberherr notes that laboratory-grown diamonds are not significantly impacting on the diamond industry. “Volumes are still quite small, at 2% to 3% of natural diamond volume, and are much less in value. Global consumer demand for natural diamond jewellery reached a new all-time high in 2017, rising to \$82-billion, a 2% increase from the previous year, according to industry insight data published by De Beers Group.”

He suggests that the market for synthetic diamonds is fashion jewellery

– incidentally, the market Lightbox is targeting – with natural diamonds already constituting a small share of the fashion jewellery market.

Blom says laboratory-grown diamond producers that try to enter the fine jewellery market are going to struggle to position their products as “worthy of a price tag that is far beyond its production cost”. He is doubtful that a consumer would buy a product that they know could be produced even more cheaply in a few months’ time.

Lieberherr adds that awareness and understanding of laboratory-grown diamonds among the global population are quite low. “There is no research suggesting synthetic diamonds are even remotely more popular than natural diamonds anywhere. The US market is the only market where they have become a commercial reality today, and it is still on a small scale.”

Brilliant Earth, while it clearly identifies its laboratory-grown products, does not preclude them from the more conventional jewellery markets. Notwithstanding this, its marketing for synthetic products seemingly suggests that it recognises such products as constituting a niche market.

Zimnisky believes that natural diamond demand growth will continue to be supported by middle-class growth in China and India, with the US remaining a core market. He and Blom believe that this demand will support rough prices going forward and as declines in supply justify further exploration.

Blom adds that, amid depleting reserves and a lack of new discoveries, “simple supply and demand theory shows that the price of natural diamonds has a firm underpinning”.

“China and India represent only 16% and 7% respectively of world diamond consumption. When you consider that China is the largest buyer of branded luxury goods and that India is the largest gold market in the world, you can only wonder what could happen to diamonds as these markets fulfil their potential,” adds Lieberherr.

Unfazed by the thought that laboratory-grown diamonds could ever collapse the natural diamond market, he notes that reproductions of works of art have not led to the collapse of the market for authentic work – quite the contrary.

“As long as synthetic diamonds can be detected and differentiated, natural diamonds will remain highly sought-after precious stones, inherently rare and valuable,” Lieberherr concludes. ■

MINING WEEKLY COUPON ON PAGE 52 E498003