

# SYNTHETICS

The sale of synthetic diamonds as natural is challenging the integrity of our diamond industry – what should we do about it?

BY MARTIN RAPAPORT

**N**ew technology is a blessing and so are synthetic diamonds. New ways of doing things and new products are opportunities. They force change and growth, which is a good thing.

The real story isn't just about the direct impact of new products such as synthetic diamonds but rather the consequences of how new affects old. If new products or technologies are more profitable or efficient, they dominate. Markets are Darwinian. They are about survival of the fittest and by the fittest we mean the most capable of adapting to a new environment.

Consider the impact of a forest fire. It burns down large, old trees whose shade has blocked sunlight and stunted the growth of small, new trees. The heat from the fire pops the acorns from the big trees and scatters their seeds. The ashes from the large burnt trees fertilize and stimulate the growth of new seedlings. So are forest fires good or bad? Whatever your perspective, they are inevitable and they are nature's method for achieving growth and development.

In the case of synthetics, new technology challenges our values. It's not just about how flexible, adaptable and forward thinking we are. It's about how honest we are. Synthetics are G-D's way of testing our integrity as individuals and as a community.

And it's not just synthetics. Consider the internet and the direct access it provides us to tens of thousands

of B2B customers and millions of new consumers. The internet benefit comes at the cost of significantly greater price and availability transparency, which can reduce profit margins. So what do we do? Do we use technology to find new ways to add value to our products and ourselves? Or do we use the internet to sell diamonds with grading reports that overstate the quality of our diamonds and enable us to mislead consumers?

Technology brings out the best and worst in us. It can be used for good or evil. There is no free lunch.

## **SYNTHETICS**

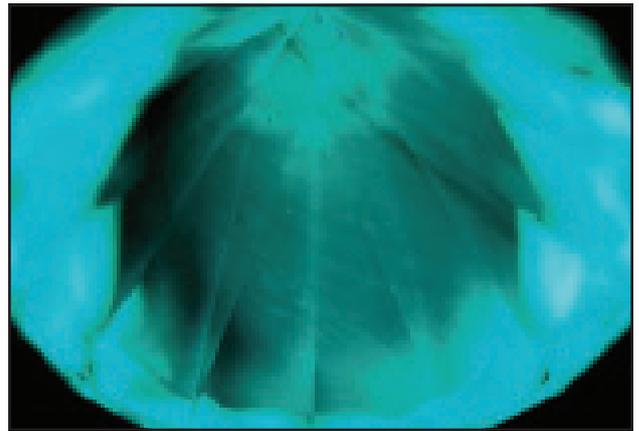
Our ability to create synthetic diamonds is driven by a world of technological innovation that is well beyond the scope of the jewelry industry. Growing diamond crystals enables new, sophisticated lasers that can be used for everything from surgical tools to "Star Wars" warfare. There is also the opportunity for super cyber computers that store information at the atomic level, as well as a cornucopia of other technological advancements based on the unique properties of diamond. Synthetic diamonds and the rapidly developing technology to create and perfect them are here to stay.

But what about the jewelry industry? Will the availability of synthetic diamonds destroy the market for natural diamonds? Will diamond suppliers misrepresent synthetic diamonds as natural diamonds and thereby



*As grown Chemical Vapor Deposition (CVD) synthetics will often exhibit orange fluorescence. Striations — a series of linear marks — are normally present and zoning — concentrated areas of fluorescence — is sometimes observed as a result of the growth events when producing the synthetic stone.*

*For treated CVD synthetics, this orange luminescence is replaced by green or greenish blue fluorescence. Phosphorescence is generated and the striations and zoning remain.*



Photos courtesy De Beers

destroy the added value created by the authenticity and scarcity of natural diamonds? Will prices for natural diamonds fall to the cost of synthetic diamonds?

There are persistent and credible reports that synthetic diamonds are being sold as natural diamonds. The misrepresentation and fraud of synthetics takes many disguises. In India, synthetic diamonds are mixed into parcels of natural diamonds and sold by diamond manufacturers, brokers and dealers as natural diamonds to unsuspecting buyers who then export the mixed parcels overseas. In China, there are reports that jewelry manufacturers are selling jewelry set with synthetic diamonds as 100 percent natural.

An even more insidious approach is being taken by companies that are reportedly buying original Gemological Institute of America (GIA) grading reports and then creating synthetic diamonds to match the reports. In some instances, they are even laser-inscribing synthetic diamonds with the GIA logo and grading report number.

So how can the diamond industry protect itself against fraud and misrepresentation? How must we change the way we trade diamonds? And what about our customers' customers — the consumers? Who is protecting them?

### **THE 4DS**

Differentiation, Detection, Disclosure and Documentation.

The key to resolving the challenges presented by

synthetic diamonds is our ability to differentiate natural diamonds from synthetic diamonds. While treated diamonds present similar issues, they are beyond the scope of this article due to their extreme complexity. As first presented in our article "Trust," published on May 6, 2002 (online at [Diamonds.Net/Synthetics](http://Diamonds.Net/Synthetics)), differentiation is reliant on detection, disclosure and documentation.

The 4Ds are synergistically reliant on each other. If we can't detect synthetic diamonds, then the price of natural diamonds will fall to the price of synthetics. Furthermore, detection cannot help us without disclosure. If our trade lies to consumers and sells synthetics as natural, no one will ever believe they are getting the real thing. Finally, without testing and supply-chain documentation, we can't be certain that the diamonds we are selling are natural.

Simply put, without the 4Ds, you don't have the 4Cs.

### **DETECTION**

A prerequisite for ensuring the added value of natural diamonds is our ability to authenticate them. Fortunately, the De Beers DiamondSure® and DiamondView® instruments can currently identify individual diamonds over 0.01 carat as natural with a 100 percent confidence level. Members of the trade are encouraged to read the November 8 letter from Philippe Mellier, chief executive

officer (CEO) of the De Beers Group and the highly informative booklet from De Beers entitled “Undisclosed Synthetics – What you Need to Know,” available online at [Diamonds.Net/Synthetics](http://Diamonds.Net/Synthetics).

While the technology of detecting synthetic diamonds has so far kept up with their creation, it is prohibitively expensive to test every diamond in a parcel of small melee diamonds or in set jewelry. The obvious solution is statistical sampling of melee parcels and jewelry with a zero tolerance level for any synthetics in a parcel sold as natural.

The De Beers planned introduction of an Automated Melee Screening (AMS) instrument by the second quarter of 2014 is an important positive development. The AMS instrument will test diamonds from 0.01 carat to 0.20 carat at the rate of 360 stones per hour and will be available to sightholders on a three-year lease for \$25,000 per year. We commend De Beers for taking the initiative on synthetic testing and strongly urge them to make the AMS instrument available to nonsightholders, particularly laboratories, as soon as possible.

The GIA has also announced that it will be providing members of the World Federation of Diamond Bourses (WFDB) with instruments that are able to test individual diamonds at high speed. Expected delivery of the GIA instruments is February 2014.

When it comes to synthetics, detection is not the problem. In fact, it’s a solution, because our ability to detect synthetics is a deterrent. It lets us catch the bad guys. Dishonest diamantaires and their companies are less likely to pepper their parcels with synthetic diamonds if there is a reasonable chance they will get caught.

## **DISCLOSURE**

The need for full disclosure regarding the sale of synthetic diamonds is an obvious and legal requirement. Given recent reports about the illegal sale of mixed parcels of synthetic and natural diamonds without disclosure, the WFDB has taken the position that disclosing synthetics is not enough. There is a new requirement that all natural diamond sales now require an affirmative statement that the diamonds are natural. In other words, when buying diamonds, you can no longer assume they are natural.

The WFDB Required Invoice Statement: “The diamonds being invoiced are natural diamonds and not synthetic unless otherwise stated in writing. This statement is based on personal knowledge and/or written

assurances provided to us by the suppliers of the diamonds and does not exclude any required disclosure regarding treated diamonds.”

The problem with the WFDB’s natural diamond disclosure statement is that it is “based on personal knowledge and/or written assurances provided to us by the suppliers of the diamonds.” This language, partially lifted from the Kimberley Process statement, allows diamond suppliers to make claims that diamonds are natural based on statements by other suppliers who in turn base their statements on statements by yet other suppliers. In the case of mixed parcels, these statements are misleading since no one knows who sold what to whom.

Such chicanery might work in the case of the Kimberley Process, where you can get away with selling blood diamonds because there are no instruments for testing them. But that is not the case with synthetics. You can test synthetics. So what happens when the WFDB statement is duly rubber-stamped on the invoice, a retailer relies on the invoice statement and then a consumer sends the diamond to an appraiser and finds out it is synthetic?

Consider an order for 300 tennis bracelets, each containing 20 round, 5-point (2.4 mm) J,VS1 diamonds. That’s 6,000 individual diamonds of a very specific size/quality. Very few suppliers have that many specific diamonds. The way the current market works is that the company handling the order has its broker locate stones from other suppliers. A chain reaction of transactions then takes place as the market tries to fill the order. Some of the goods may come from other dealers who have collected such stones over time from numerous small cutters. Diamonds change hands rapidly, with the same stones being transacted many times. Furthermore, the stones are moved from parcel to parcel, mixed and remixed as inventories are adjusted.

With over 350,000 cutters and 2,500 factories in Surat, India, where about 90 percent of the world’s diamonds are cut, does anyone think that every 5-pointer will be tested every time it changes hands? There is no way a dealer can track the source of every melee stone in his parcels.

If we want legitimacy in our diamond markets, we have to stop faking it with statements on invoices that indicate everything is okay, even when things are not okay. We must realistically accept the limitations of our open markets and the needs of our smaller diamond traders.

We must accept the fact that in the open markets for diamond parcels, dealers often have no idea where their diamonds come from, who sold them each stone and if the diamonds are natural or synthetic.

Requiring everyone to rubber-stamp their invoices that diamonds are natural based on statements made by untraceable people for untraceable goods is not the way to go.

### **JUST TELL THE TRUTH**

To honestly solve the problem, we must accept and recognize that different situations require different types of disclosure. Statements on the invoice or memo should be straightforward, informative and honest. For example: 1) "Synthetic Diamonds"; 2) "Parcel includes mixture of synthetic and natural diamonds"; 3) "Sold AS-IS" or "Diamonds of unknown origin, Not tested. May contain synthetic (or treated) diamonds"; 4) "Natural Diamonds. Tested and sealed by (Name of Company that did the test), (list of equipment used to test)." And if it has only been sampled, state "Sample Tested" and indicate percent tolerance and confidence level.

The solution is really very simple.  
Everyone should just tell

the truth. If you don't know if synthetic diamonds are in your parcel, then write on your invoice: "Sold AS-IS. Not tested." The market will adjust prices for tested and untested parcels and traders will decide when they should test to add the most value.

Testing procedures can take place at any point in the supply chain. However, if diamonds are being sold as natural to consumers, proactive disclosure based on testing should be made before such sales, with the chain of custody documented from the testing to the retail counter. It should be clear that while B2B dealers might try and play the "I didn't know" game, there is no way a retailer can tell a consumer that he didn't know the diamonds being sold as natural were in fact synthetic.

We must recognize the fact that the buck stops with the retailer. No excuses. No stories. In order to maintain the credibility of our industry, our trade, our diamonds and ourselves, we must ensure that retailers and their customers are 100 percent protected. We must ensure that jewelers can honestly sell natural diamonds.



Photo courtesy De Beers

*De Beers Automated Melee Screening (AMS) instrument.*

## **DIFFERENTIATION**

There is a lot of talk about disclosure requirements for synthetic diamonds, as if the synthetic diamond is to be blamed for being dishonest. In fact, it's not just the diamonds that need to be tested and disclosed, it's us — the diamond trade. If we want to separate natural diamonds from synthetic diamonds, we must also separate honest diamond people from dishonest "synthetic" diamond people.

A culture of "It's okay to lie, cheat and not play by the rules" has been allowed to develop. While I am a great believer and supporter of free markets, I strongly condemn *laissez-faire* ethics.

The diamond trade has been greatly damaged by the destruction of our level playing field. Companies that buy diamonds significantly below market prices because they bribe a foreign government official, deal in blood diamonds, ignore money-laundering and tax regulations or even pepper their parcels with synthetics are allowed to prosper. How can an honest company compete with companies that don't play by the rules?

In a freely competitive market, if one company bribes, do we all have to bribe to stay competitive? If one mixes synthetics with natural, don't we all have to mix synthetics? Can normal companies afford to be honest? By now it should be clear that evil is not just evil. Evil forces other people to be evil. Evil is contagious.

It's unfortunate that the diamond trade has gotten used to "getting away with it" when it comes to human rights abuses and the Kimberley Process. Now some think they can "get away with it" when it comes to synthetics as well. Since we did not establish a secure ethical industrywide supply chain when we should have, the leadership is now being forced to deal with supply chain issues in crisis mode.

It is also unfortunate that after all these years, in spite of the fact that thousands of innocent people have suffered due to human rights abuses linked to diamonds, not one person was expelled from the trade. This raises serious questions about whether the diamond industry is capable of policing itself. Are we capable of expelling companies and trade members who sell undisclosed synthetic diamonds?

While naming, shaming and blaming fraudulent firms may be a gratifying reactionary approach, I don't think we can clean up our entire industry. I also don't think it is efficient and cost-effective for the good people in our trade to spend their time and energy chasing all the bad people all over the world.

What we can, should and must do is take the high road. We must create a new, higher level playing field that promotes and supports those that have honest ethical values. We must create markets that empower the good people.

## **DOCUMENTATION**

Given the fact that we can no longer assume that a diamond is natural, you must have a properly documented basis for affirmatively stating "Natural Diamond" on an invoice. Documentation need not be difficult or burdensome. Proof that a diamond is natural can be established by a document from the manufacturer or tester. If the seller is doing the manufacturing or testing, an internal document will suffice. In any case, the document should sufficiently identify the specific diamond or parcel of diamonds, as well as who tested it and when it was tested.

In the event that the diamonds were manufactured, or tested by a third party, reasonable chain-of-custody standards should be applied to ensure that the diamonds have not been switched. Direct delivery or tamper-proof sealing is recommended. While gemological descriptions are helpful, beware of absolute reliance on grading reports. In some instances, synthetic diamonds have been cut to exactly match original GIA reports. Unsuspecting buyers were tricked into thinking the diamonds were natural due to the grading reports.

## **MARKET IMPACT**

The sale of synthetic diamonds as natural diamonds creates significant disclosure problems for retailers. Retailers are held to a higher standard of responsibility because their customers are consumers who have less knowledge of diamonds than B2B buyers and sellers. Furthermore, misrepresentation of diamond authenticity by retailers incurs significant liabilities and will destroy their brand credibility if allowed to persist.

While the extent of synthetic diamond infiltration into the natural diamond supply chain is not yet known, retailers are advised to investigate their sources and confirm the authenticity of the diamonds they buy and sell. Sample testing of diamond parcels and jewelry, particularly if they originated from China or India, is a good idea. In the event that specific jewelry styles have been found to contain synthetic diamonds, consumers who purchased such jewelry in the past need to be informed and new disclosure statements should be implemented.

A key point is that retailers can no longer assume that diamonds are natural. Responsible retailers should confirm the authenticity of their diamonds through sample testing and written authentication from their diamond or jewelry manufacturer. Retailers with questions about the integrity of their supply chain should ask questions and get reliable answers.

The challenge created by the undisclosed sale of synthetic diamonds has the potential to upend the market for smaller natural diamonds. Should the level of undisclosed synthetic sales reach a critical mass and/or the cost of testing every stone become too high, many retailers will not be able to ensure that their diamonds are natural. This will require public disclosure by retailers that the diamond they are selling may be a natural or synthetic.

When it comes to inexpensive diamond jewelry, the marketing of synthetic diamonds in combination with or instead of natural diamonds may become acceptable if

trade to be more honest. They will force us to control our supply chain and finally take responsibility for the products we buy and sell. They are good because they are a new product category that will increase industry profits.

Synthetic diamonds are also good for the natural diamond mining sector. Diamond miners will now be forced to aggressively differentiate natural diamonds from synthetics through innovative marketing, promotion and advertising campaigns. They are going to have to explain to consumers why they should pay more for natural diamonds. Instead of telling everyone else to add value, miners who want to obtain a premium price over synthetics will now be forced to add value to natural diamonds.

Synthetic diamonds will give new meaning to the phrase “Supplier of Choice.” The issue before us is not whether synthetics are “Up To Diamonds,” it’s whether

## “Real Love = Real Diamonds™”

authentication is difficult and synthetic diamonds are much less expensive. Retailers will question why they should not avoid reputational risk and increase profits by selling synthetics.

The infiltration of synthetic diamonds into the natural diamond pipeline is creating new realities and new opportunities for synthetic diamonds. Legitimately or illegitimately, synthetic diamonds are sneaking their way into retailer showcases. Synthetic diamonds are on their way to the slippery slope of legitimacy.

Considering the long-term implications, the sale of synthetic diamonds does not represent an economic threat to retailers, diamond dealers or even diamond cutters who can switch to cutting synthetics. These entities can make profits by selling synthetics. In fact, they may make more profits since synthetic diamonds open up more merchandising and product category opportunities at much more affordable price points.

### **SYNTHETICS OR NATURALS**

Synthetic diamonds are a good thing. They are good for the diamond industry because they will force our

the marketing and value differentiation of natural diamonds will be “Up To Diamonds.”

And now for the really good news. Natural diamonds are hot. While synthetic diamonds can try to get a free ride on the real thing, they will never be the real thing. Make no mistake about it, natural diamonds are better than synthetic diamonds and easier to sell. All we have to do is stop taking our natural diamonds for granted and start setting them against synthetics.

The idea that natural diamonds are special, unique and naturally scarce is fundamental to their value and the values they communicate. That flies in the face of the idea that diamonds are a manufactured product with unlimited supply.

Consumers subconsciously empower diamonds with symbolic values that they then project onto themselves and each other. “You are special, unique and rare,” communicates the diamond to the woman. The gift of commitment is the expensive diamond, because she is worth more than money.

Real Love = Real Diamonds™ says it all. ♦