
De Beers' response to the undisclosed synthetics risk

Jamie Clark



ACCURACY • KNOWLEDGE • EXPERTISE

Undisclosed Synthetics - our greatest risk

Increased concern in the diamond trade about undisclosed sale of synthetic diamond material:-

- Greater availability of synthetics provides increased opportunity for cheating
- Lower production cost has increase the incentive for such undisclosed sale of synthetics
- Production of HPHT and CVD synthetics, sale and use of detection technology has increased dramatically in recent years
- Brands taking action to reduce the risk of synthetic melee being discovered in their jewellery creations

The De Beers Group is taking action to meet this challenge in maintaining both trade and consumer confidence.....

Our response: De Beers' IIDGR

De Beers has launched the **International Institute of Diamond Grading & Research**









Laboratories located in major diamond trading centres:-

- Antwerp, Belgium – major laboratory
- Surat, India – major laboratory
- Maidenhead, UK – research & development; laboratory










IIDGR aims to:-

- meet various consumer confidence challenges head on
 - support the diamond industry with products and services
 - educate the trade and consumers
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







CARAT

							
0.25 carat 180 pts.	0.50 carat 400 pts.	0.75 carat 600 pts.	1.00 carat 800 pts.	1.25 carat 1,000 pts.	1.50 carat 1,200 pts.	2.00 carat 1,600 pts.	3.00 carat 2,400 pts.






COLOR









								
D color 100 pts.	E color 200 pts.	F color 300 pts.	G color 400 pts.	H color 500 pts.	I color 600 pts.	J color 700 pts.	K color 800 pts.	L color 900 pts.

CLARITY

								
IF 100 pts.	VVS1 200 pts.	VVS2 300 pts.	VS1 400 pts.	VS2 500 pts.	SI1 600 pts.	SI2 700 pts.	I1 800 pts.	I2 900 pts.





CUT









				
Ideal 100 pts.	Very Good 200 pts.	Good 300 pts.	Fair 400 pts.	Poor 500 pts.









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LEGEND

 CARAT
  COLOR
  CLARITY
  CUT

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INTERNATIONAL INSTITUTE OF
DIAMOND GRADING & RESEARCH

CALENDAR 2013

ACCURACY • HONESTY • DISCREET

Head of the Main Laboratory of International

Retailer Kit

[illegible]

Utilising 120 years of De Beers marketing excellence to create a full trade/consumer awareness proposition

THE INTERNATIONAL INSTITUTE OF DIAMOND GRADING

Founded by the diamond industry leader, The International Institute of Diamond Grading & Research is a part of the De Beers Group of Companies.

Grading

Our heritage dates back over 120 years. Today we deploy the most advanced proprietary technology and, consistent with our background, we apply our skills today to what we know best: the science of diamonds.

Every diamond we assess receives either our official Diamond Grading Report or a more concise Diamond Identification Report.

For further information on our grading services, please contact: grading@iigp.com

Detection Instruments

The imperial grading of diamond simulators, synthetics and treated diamonds is a real threat to the diamond trade, consumer confidence and to reputations.

IIGDP offer detection instruments that can readily screen out simulators, synthetics and treated diamonds.

Our suite of instruments consists of DiamondView[®], AML[®], DiamondView[®] and DiamondView[®] which can be used in combination, when considerably reduce the number of stones that would need more time consuming extensive laboratory testing.

For more information on our detection instruments please contact: contact@iigp.com

Melee Testing Service

IIGDP have a low cost Melee Testing Service available to return one in the diamond trade. IIGDP deliver a fast turnaround with complete accuracy and clearly categorised parcels delivered to you in tamper-evident bags.

Today, with the risk of unlabelled synthetics, there is no better way to boost confidence in your products than using the independent services of IIGDP.

For more information on how to submit goods please contact: testing@iigp.com

DE BEERS
GROUP OF COMPANIES

ACCREDITED KNOWLEDGE & EXPERIENCE

Part of The De Beers Group of Companies

LONDON

Adver

Advertising

Consumer focused Grading report

Consumer Website



A Precious Heritage

The International Institute of Diamond Grading & Research is part of the De Beers group of companies. It is one of the only organizations of its kind solely dedicated to the most sophisticated of precious stones.

Our heritage of expertise, accuracy and probity is integral to everything we do.

The dedication and precision we devote to assessing diamonds is now available to our clients around the world.

Our technical experts are based in Antwerp, the traditional centre of excellence for diamond assessment, grading and cutting.

Origins assured

The International Institute of Diamond Grading & Research only grades and inscribes diamonds that bear the United Nations-licensed World Diamond Council Kimberly Process.

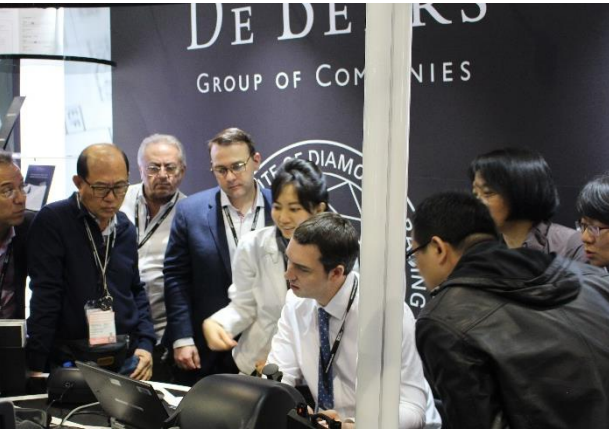


ACCURACY • KNOWLEDGE • INTEGRITY

Part of the De Beers group of companies

Consumer Brochure

IIDGR Products & Services



1. Melee Testing Service

- Offered from all laboratories, full testing on loose diamonds from 0.20cts to 0.003cts
- Provides the client with tested diamonds in tamper-evident sealed parcels with tamper-proof descriptors
- Current capacity in the tens of millions and increasing
- Uses revolutionary proprietary instrumentation
- TAT depend on stone size, quantity and parcel results



2. Diamond Referrals Services

- Focus on stones sent to us where previous testing was inconclusive

3. Detection Instruments

- Produce and sell to the trade world leading diamond verification and synthetic detection instruments
-

Detection Instruments

Current Generation

DiamondSure & DS Mount

absorption
refers all synthetics
refers type II and type IaB diamonds



DiamondView

surface fluorescence
identification of synthetics



DiamondPLUS

photoluminescence
screening of type IIa diamonds
for HPHT treatment



AMS

Automated Melee Screening
refers all synthetics
refers type II diamonds



Detection Instruments

Process flow

All polished goods

DiamondSure



**Fancy colour type I passes will need additional testing for HPHT treatment*

AMS



~95% Pass (dependant on stone size)
No further testing required*

All synthetics/ simulants
+ ~2% of natural diamonds

DiamondView



All synthetics
identified

Natural type II

DiamondPlus



HPHT treatments test

Further Research and Development

- IIDGR is strongly supported by De Beers Technologies, based in Maidenhead, UK
- Working closely together, IIDGR and De Beers Technologies continue to innovate and bring new product and service to the diamond industry
- These include:-
 - Continuous research and development in to new and improved grading technology
 - Melee Testing Services throughput techniques
 - New Detection Instruments to meet new challenges at various contamination points in the supply chain

PhosView



- Just launched 2 weeks ago and already very popular
- For rapid screening of loose melee as small as ± 0.003 cts
- Identifies HPHT synthetics
- Simple set jewellery capability
- \$4,500

De Beers Research Resources

- **De Beers Group**
 - Over 65 years of fundamental diamond research
- **De Beers Technologies UK**
 - Diamond characterisation and equipment development expertise
 - More than 25 years of Consumer Confidence Technical Research
 - Benchmark studies of natural diamonds
 - Proactive synthesis and HPHT treatment research with Element Six



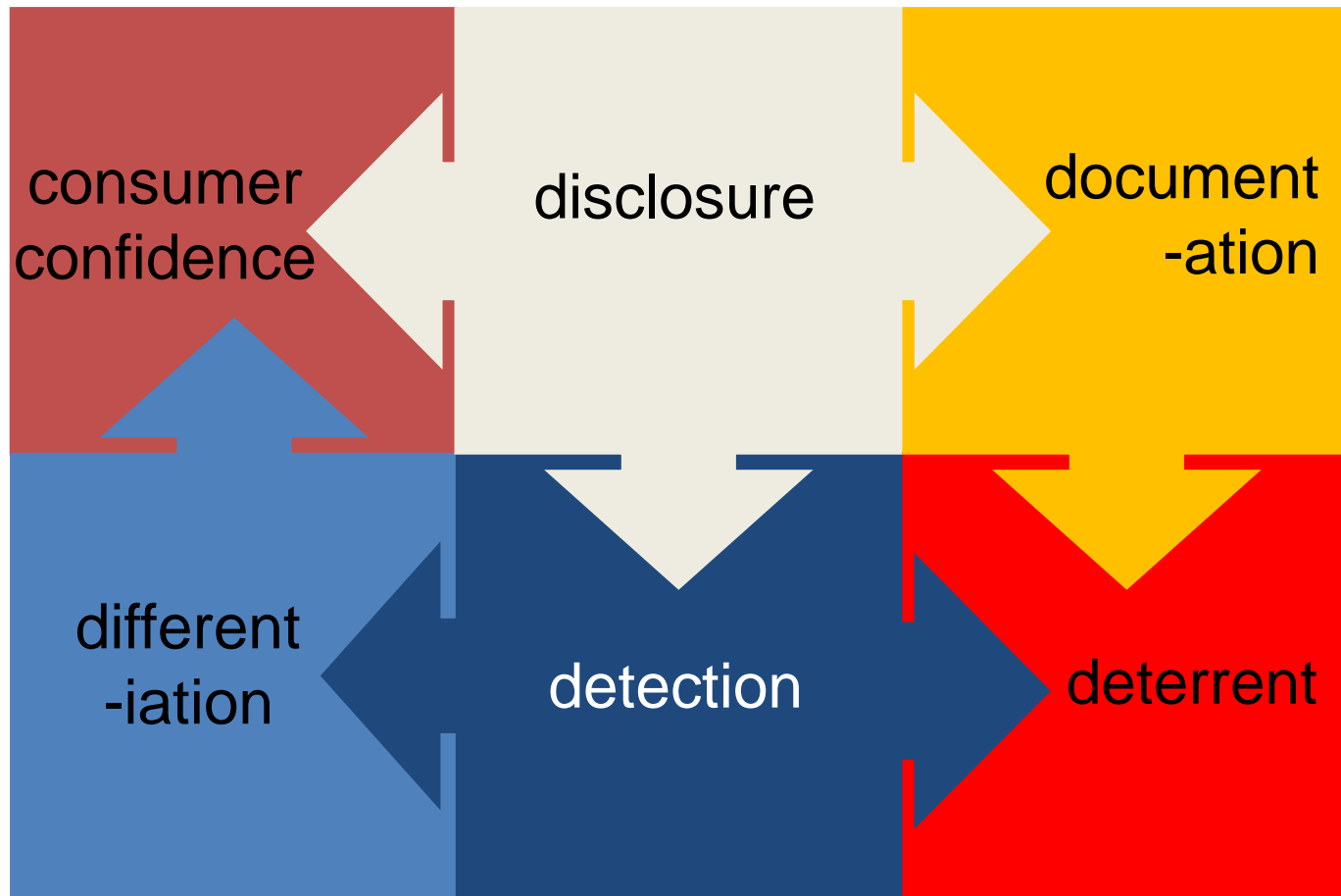
- **De Beers Technologies supports**
 - Diamond research at UK universities
 - Centre for Doctoral Training in Diamond Science & Technology



De Beers

Consumer Confidence Programme

maintaining & enhancing consumer confidence in the
mystique & integrity of diamonds



ISO STANDARD

Jewellery – consumer confidence in the diamond industry



“Diamond”

- Grows under natural geological processes
- “Diamond” without further specification always implies “natural diamond”

“Synthetic diamond”

- Laboratory-grown diamond
- Laboratory-created diamond
(or acceptable local direct translation)
- Brand or manufacturer’s name plus diamond not sufficient for disclosure

The FTC also permits the following terms to be used:

laboratory-grown diamond, laboratory-created diamond and synthetic diamond