



LONITÉ

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Hair and Ashes to Diamonds





Diamonds are forever.  
LONITÉ crafts certified diamonds from the hair and/or ashes  
of your loved ones, capturing their essence forever.  
That is what makes each LONITÉ diamond  
as unique as the one you love.

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## PART I

# INTRODUCTION



## What Are Cremation Diamonds?

Cremation diamonds are created from the carbon in hair or cremated remains.

A diamond is the purest form of carbon, and the human body contains about 18% carbon. In the laboratory, carbon extracted from the hair or ashes received is then put through a series of procedures (such as purification, crystallization, etc.). A cremation diamond is cultured from the elements of your loved one. Therefore, turning ashes into diamonds is a wonderfully unique way to remember your story of love.

# OUR COMPANY



## Swiss Origin

Our story began in a small town near the Alps, just a 25 minute train ride south of Zürich, Switzerland.

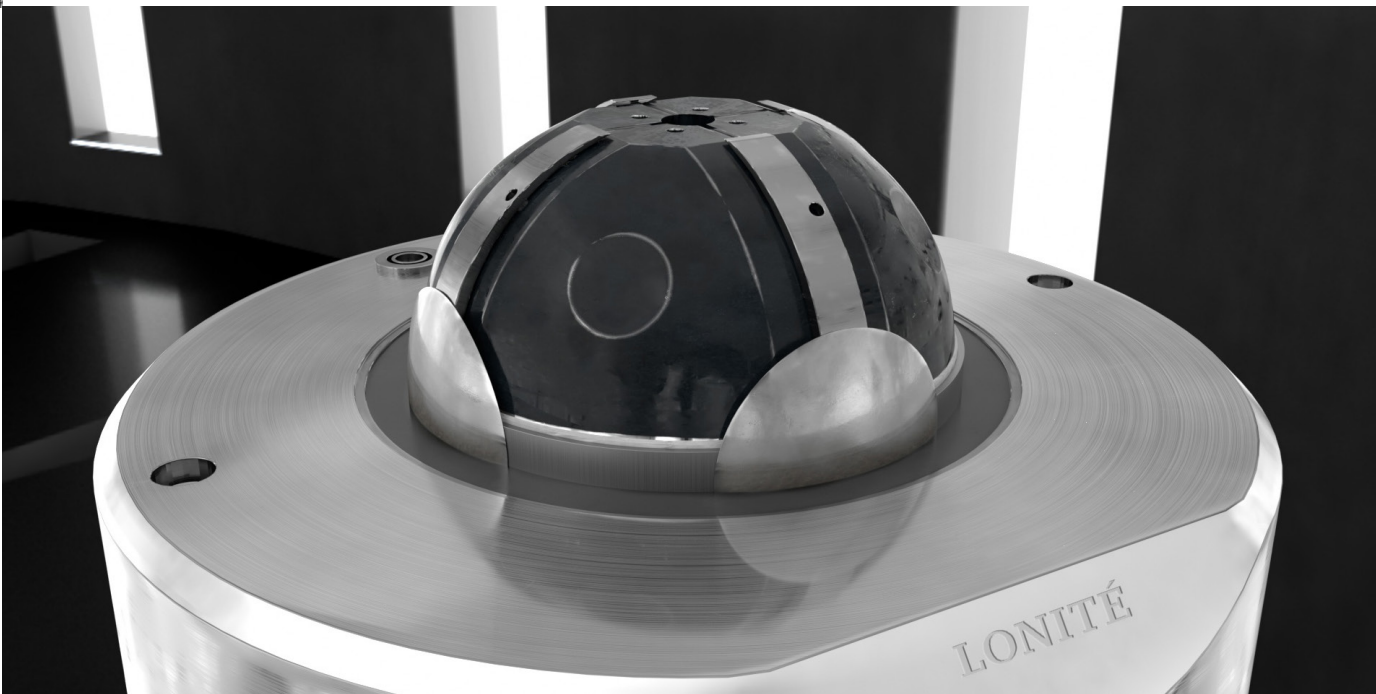
The technical origins of Lonité date to the early 1950's, when scientists created the first man-made diamonds (known today as cremation diamonds) using High-Pressure High-Temperature anvils.

## Our Origin

The company name 'Lonité' originates from 'Longévité' in French, which translates to 'to last in time'.

The founders of Lonité are all leaders in their field of expertise. For years , our founders have been involved in the jewelry trade, scientific research, and the funeral business, as well as creating beautiful cremation diamonds.

At the very beginning, only very small amber and blue cremation diamonds could be created. Today's advancements in technology have changed all of that, meaning cremation diamonds from Lonité come in larger sizes and more beautiful colors.







PART II

TECHNOLOGY

## THE THEORY



### Re-creating Natural Environments

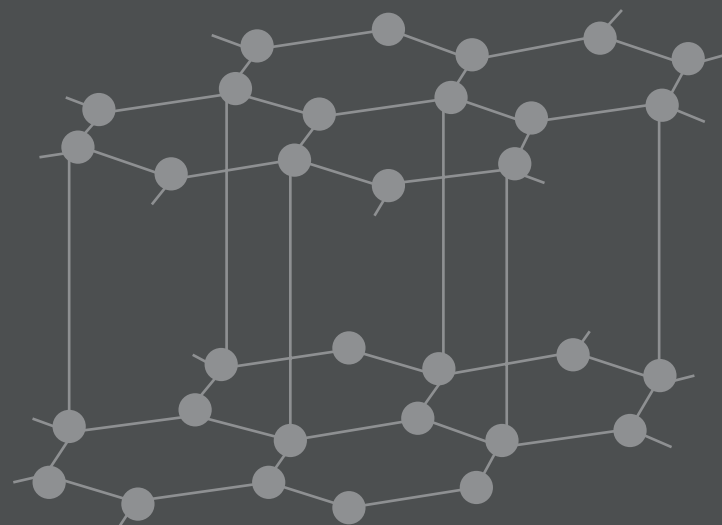
Deep underground, natural diamonds develop in an environment of extreme high-pressure and high-temperature (HPHT).

Similarly, inside Lonite's laboratory, using precise creation and control of extremely high temperatures (3000K) and pressures (60000 Bar), we recreate this natural environment, allowing us to create beautiful, everlasting diamonds from the carbon in your loved one's hair or ashes.



Memorial diamonds are physically, chemically, and optically the same as all natural diamonds. We are proud to be able to offer our clients the opportunity to wear memorial diamonds as a way of keeping their loved ones with them forever.

# TECHNICAL PROCEDURES



## I. Carbon Purification

**5.000 Minutes For A 4N Purity (99,99%).**

Purification takes approximately 5000 minutes per diamond.

Impurities are removed and reduced to 1/500 of the original carbon source materials in order to achieve 4N purity (99.99%).

Every small detail matters. LONITÉ insists on utilizing highly specialized state-of-the-art equipment, providing the greatest precision, quality and stability: surgical grade accuracy to 0.001(g).

## STEP 1

### Material Examination

The carbon source is, first and foremost, analyzed to determine whether the ashes (or hair) contains enough carbon to be turned into a diamond. Since the total carbon contained in ashes differs from case to case, we suggest providing additional hair samples from the family or close friends as a supplement to ensure there is enough carbon to successfully undergo LONITÉ's diamond creation process.



## STEP 2

### Planetary Nano-Crystallization

In the form of a special solvent, impurity remover is applied to remove unstable chemicals. The material you have provided to create your cremation diamonds is then milled and stirred into a nano powder in a special chemical gas environment. The impurity remover then attaches to impurities, which are isolated from the materials in a high-speed centrifuge. Furthermore, special treatment and techniques are implemented so the remaining carbon is adequately preserved while other elements extracted are reduced to a fractional minimum.



Milling equipment is similar to the movement of planetary systems, involving both rotation and revolution.



### STEP 3

#### Heated Vacuum Purification

The ashes (or hairs) are heated to an extreme temperature to get rid of further volatile impurities. During the process, oxygen is removed and a certain inert gas, mixed with protective reducing gas, is injected to protect the ashes or hair from oxidation. Double handling is applied for chemical extraction. In some cases, high voltages may be applied via an energized airtight container to melt and evaporate chemicals in order to separate the solid carbon.



Muffle furnace injected with protective reducing gas protecting the ashes or hair from oxidation

### STEP 4

#### Wet Chemical Carbon Purification

The ashes or hair is then placed in a safe and resistant cabinet, in a wet chemical environment, to enhance purity by removing heavy metals. Automatic and program-controlled temperatures, stirring speed, and chemical reagents amount ensure the carbon quality. At the end of this final purification step, the carbon purity reaches as high as 99.99%. If the purity levels have not reached 99.99% by this stage, extra customized purification steps are implemented to remove the remaining impurities.



## II. Diamond Crystallization

**Purely Colorless™ at 0.5-1.0 mg/hour.**

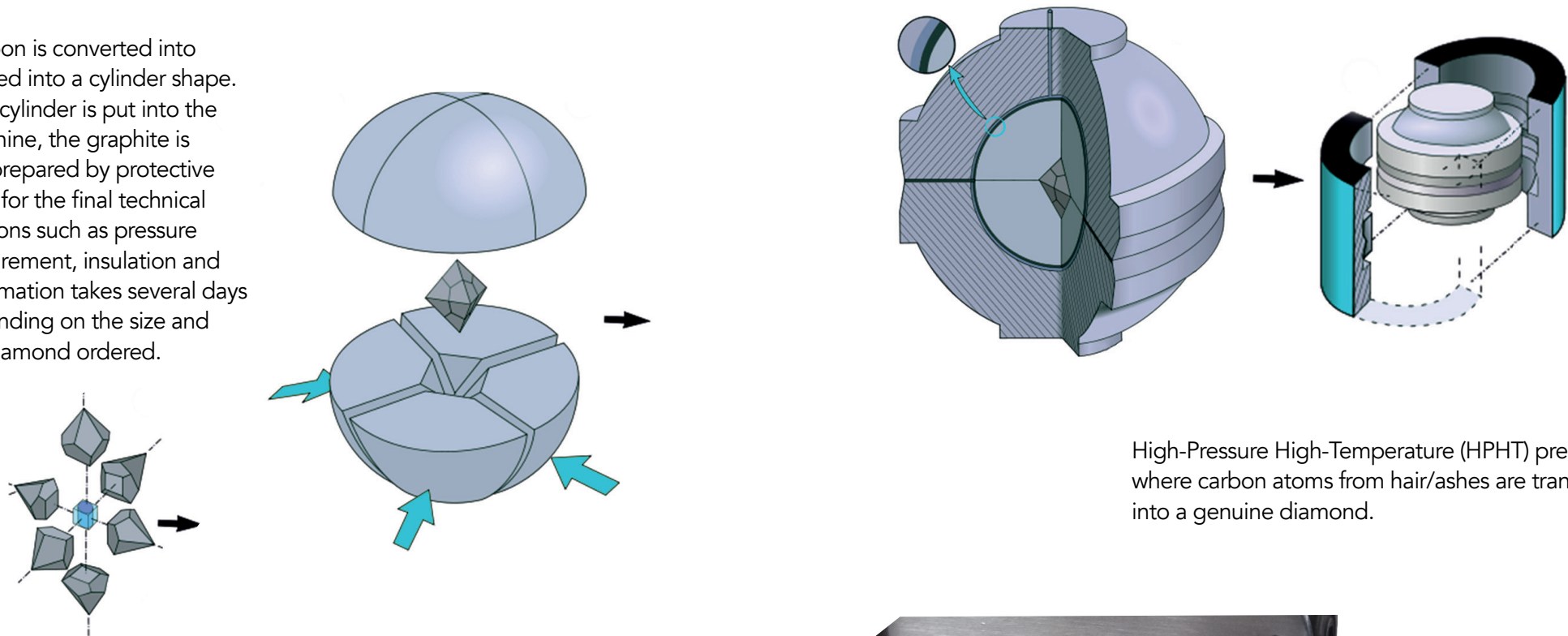
The crystallization foundation is assembled with the purified carbon. It's so pure and dense that even air atoms are excluded, such as H<sub>2</sub>O (water vapor) and O<sub>2</sub> (oxygen).

A typical Purely Colorless diamond grows slowly and steadily at 0.5-1.0 mg/hour (an extremely slow speed). The slower the speed, the better stability and better crystal structure we will achieve. A 1 carat diamond can take 750 hours to grow.

## STEP 5

### HPHT Crystallisation

The extracted pure carbon is converted into flake graphite and formed into a cylinder shape. Before the pure carbon cylinder is put into the diamond synthesis machine, the graphite is carefully wrapped and prepared by protective and corbelled materials for the final technical steps that require functions such as pressure and temperature measurement, insulation and protection. The transformation takes several days to several months depending on the size and color of the memorial diamond ordered.



High-Pressure High-Temperature (HPHT) presses where carbon atoms from hair/ashes are transformed into a genuine diamond.

## STEP 6

### Diamond Polishing

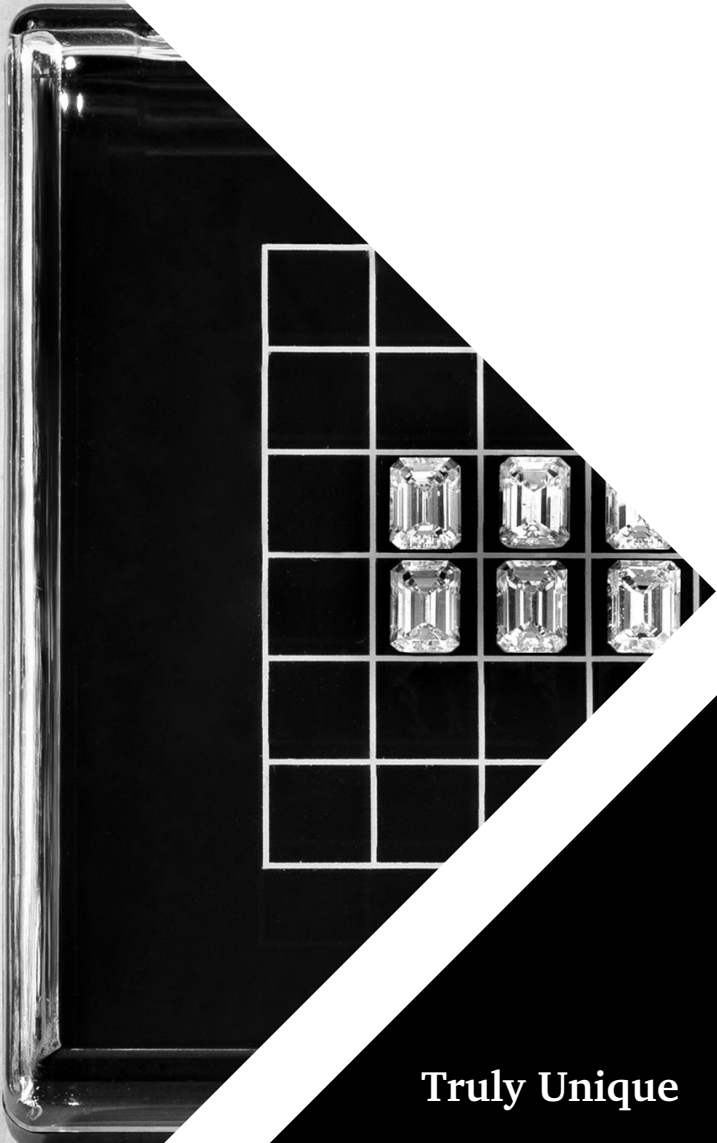
Unlike mined diamonds, rough memorial diamonds usually have a mixture of graphite and other materials on the diamond's surface. The rough diamond is carefully polished by experienced experts who deal solely with grown diamonds. A rough un-cut memorial diamond can be provided if requested. However, we suggest that this rough diamond NOT be cut at any time after it is delivered as inexperienced diamond cutters (without specialized cutting skills) could break your loved one's diamond.





4N Purity

99.99% pure (4N). Solely from elements of life.  
No CVD diamond seeds;  
No unstable chemicals;  
No artificial colors;  
No heavy metals.



PRODUCT  
FEATURES

Truly Unique

After the hair and ashes are purified, the synthesis environment gives them an independent growing environment.

No two diamonds are alike. The final shape, size, and color of the cremation diamonds depend on thier origin.

Each cremation diamond is expertly grown and truly unique. The synthesis environment only gives a range of colors and carats. Exact dimensions can neither be controlled nor predicted



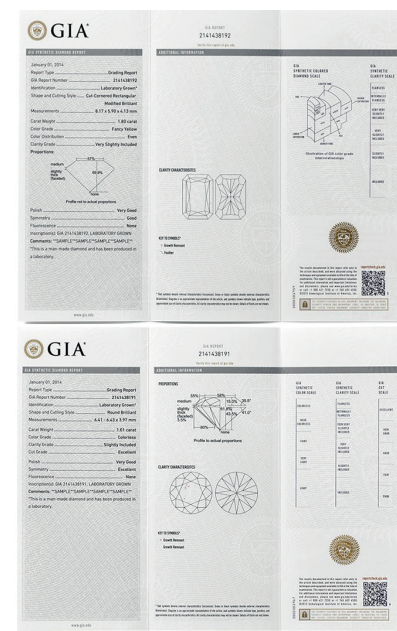
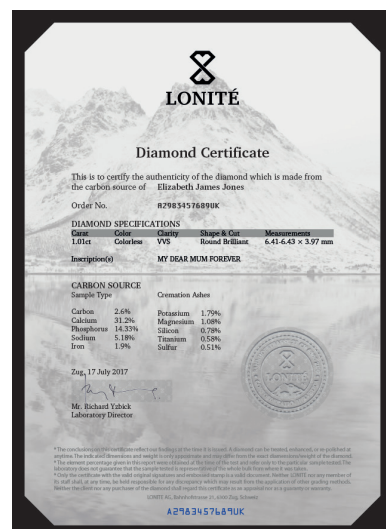


## Certificate of Authenticity

Memorial diamonds are genuine diamonds that can be certified by all worldwide recognized gemology institutes.

Certificates of authenticity for LONITÉ memorial diamonds can be issued from the Gemological Institute of America (GIA) or the International Gemological Institute (IGI), which proves that all LONITÉ diamonds are genuine diamonds and certified to be lab-made (non-mined).

After the memorial diamond growing process is complete, a third-party certification from GIA or IGI can be ordered to show the authenticity of your memorial diamond and, most importantly, the 4Cs grading of the origin of the memorial diamond – LONITÉ's laboratory.



## Laser Inscription

After your memorial diamond has been created, we are able to personalize it with words, a name, or a sweet phrase engraved onto the diamond girdle.



## 7 FEATURES



### I. Maximized Use of Ashes / Hair.

#### Up to 99.99%.

A diamond is made 100% from ashes. To create a memorial diamond, a microscopic diamond is required (as the seed crystal), from which the new diamond will evolve. However, LONITÉ produces memorial diamonds that are comprised of up to 99.99% carbon from human ashes or hair.

### II. Natural Diamond Seed.

#### No CVDs.

A diamond seed is the microscopic diamond required as the foundation from which the new diamond will evolve (the seed crystal). Carbon atoms (from ashes/hair) attach themselves, under immense pressure, and begin to crystallize. For the diamond seed, LONITÉ only ever uses single-crystal natural diamonds from the top 0.1% of quality natural diamonds instead of CVD (Chemical Vapor Deposition) diamonds.

### III. Type IIb:

#### The Top 0.1%.

LONITÉ Blue and Purely Colorless diamonds distinguish themselves as type IIb diamonds. When examined with an infrared spectrometer, these diamonds show remarkable absorption on the red side of the visible spectrum. LONITÉ type IIb memorial diamonds are visually indistinguishable from the rarest and most valuable 0.1% of all natural diamonds, but with an extremely unique origin: your loved one.



### IV. No Heavy Metals (0.00%).

#### 100% Safe.

LONITÉ memorial diamonds are free of lead (Pb), mercury (Hg), bismuth (Bi) and sodium bromide (NaBr). LONITÉ uses natural and medical-safe agents to clean ashes. No heavy metals (0.00%) are adopted in LONITÉ's process.



### V. No Artificial Colourings (0.00%).

#### Natural Colors.

LONITÉ creates colored diamonds by giving them the environment to grow, instead of mixing any artificial colorings onto the diamonds. The synthesis environment only gives a color range. Thus, the final color ultimately depends on its origin. Each diamond has a unique color, and no two memorial diamonds are alike.

### VI. 4N Purity.

#### The Essential 99.99%.

LONITÉ memorial diamonds contain at least 99.99% purity of carbon. Impurity leads to diamond flaws, and can sometimes crack the diamond crystal. High Pressure High Temperature (HPHT) diamond synthesis can only be effectively achieved with the purest forms of carbon. All other trace elements must be removed.



### VII. 18% and 3% of Human Body.

#### Positive Life Elements.

Carbon [C] accounts for 18% of the human body; nitrogen [N] accounts for 3%. Both are essential for proteins with amino acids and DNA. The carbon purification system can leave either nitrogen or boron (related with metabolism of calcium) within the growing foundation, leading to an amber or blue color. The diamond grows into Purely Colorless by preserving carbon and removing all other elements.







PART III

CATALOG

# THE DIAMOND



## Purely Colorless™

The colorless cremation diamond has the highest purity (4N purity - 99.99%) of carbon, free from any other elements or impurities.



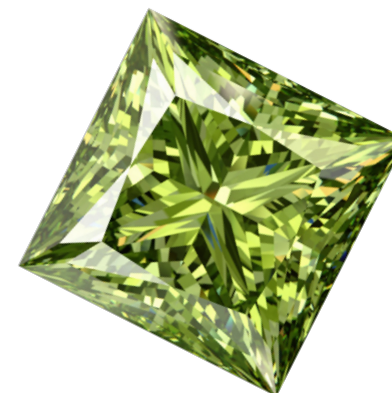
## Black

Black diamonds have long been a symbol of romance and eternal love, attraction and aspiration, and the purity and preciousness of love.



### Naturally Amber™

Amber diamonds are a radiant color choice. It is a symbol of nobility, providing a sense of opulence and magnificence that can reflect a dignified and extraordinary temperament.



### Greenish Yellow

The greenish diamond has a natural sense of hope, symbolizing life, harmony, vitality, and abundance.

### Pink

Pink diamonds are crystal clear, with a delicate pink color, the fresh and graceful appearance bringing out an elegant and lively aura, and symbolizes the sweetness of love.



### Blue

Blue diamonds provide a noble touch, simple but elegant, symbolizing mystery, wisdom, wealth and freedom.



### Red

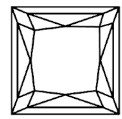
The red diamond is the rarest of all fancy-colored diamonds. Further processed from amber-colored diamonds, it is highly valued for its gorgeous vivid color and signifies strength and courage.



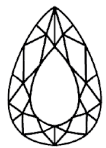


# CUTS

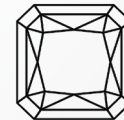
Each memorial diamond grows uniquely. The choice of diamond cuts will be decided by the original shape of the rough diamond to preserve a maximum carat weight. Not only the usual basic cuts, but also many classical and unique custom cuts are available, such as the Trilliant cut, the Full Dutch Rose cut, the Baguette cut, etc.



Princess



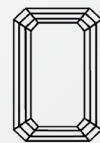
Pear



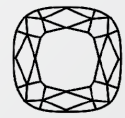
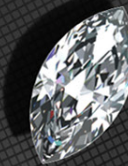
Radiant



Emerald



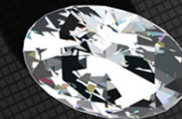
Marquise



Cushion



Oval



Round

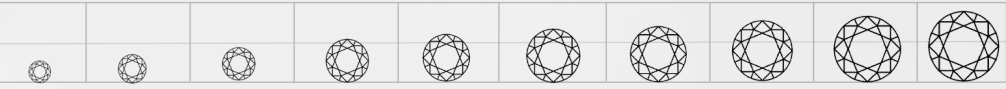
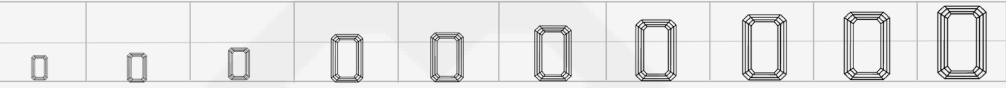
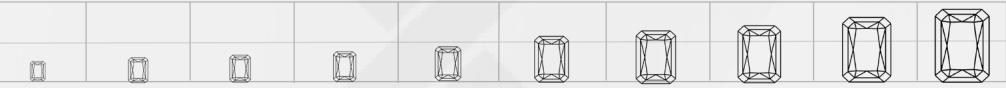
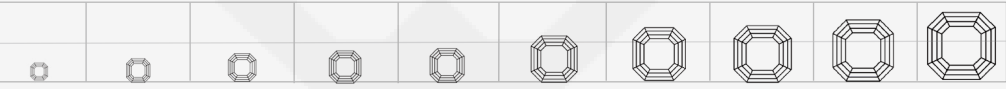




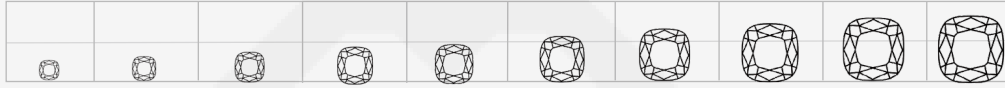
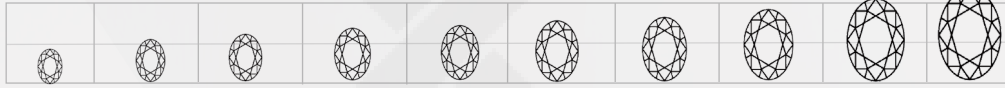
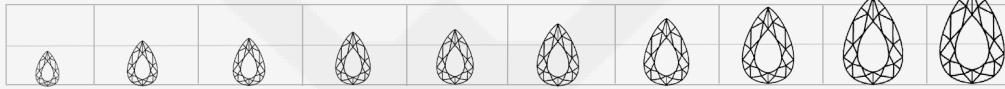

Heart



# Carat Weights and Sizes

The weight of a diamond is expressed in carats (ct).  
One carat is equal to 0.2 grams

	0.15 ct	0.25 ct	0.35 ct	0.50 ct	0.60 ct	0.80 ct	1.00 ct	1.50 ct	2.00 ct	3.00 ct
Brilliant										
	3.40	4.10	4.60	5.10	5.40	5.93	6.40	7.32	8.05	9.20
	×	×	×	×	×	×	×	×	×	×
Emerald										
	3.55	4.50	4.71	5.31	5.63	6.20	6.68	7.65	8.33	9.64
	×	×	×	×	×	×	×	×	×	×
Radiant										
	3.20	3.64	3.78	4.59	4.87	6.03	6.50	6.61	8.19	9.00
	×	×	×	×	×	×	×	×	×	×
Asscher										
	3.00	3.54	4.00	4.50	4.73	5.21	5.45	6.43	7.34	8.40
	×	×	×	×	×	×	×	×	×	×
Princess										
	2.93	3.47	3.88	4.37	4.65	5.21	5.51	6.31	6.94	7.95
	×	×	×	×	×	×	×	×	×	×

	0.15 ct	0.25 ct	0.35 ct	0.50 ct	0.60 ct	0.80 ct	1.00 ct	1.50 ct	2.00 ct	3.00 ct
Heart										
	3.49	3.67	4.58	5.16	5.51	6.03	6.56	7.32	8.27	9.46
	×	×	×	×	×	×	×	×	×	×
Cushion										
	3.10	3.67	4.00	4.62	5.00	5.41	5.83	6.67	7.34	8.40
	×	×	×	×	×	×	×	×	×	×
Oval										
	4.31	5.12	5.72	6.44	6.84	7.80	8.12	9.29	10.23	11.70
	×	×	×	×	×	×	×	×	×	×
Teardrop / Pear										
	4.00	5.69	6.08	7.19	7.64	8.40	9.05	10.00	11.40	12.20
	×	×	×	×	×	×	×	×	×	×
Marquise										
	5.00	6.54	7.32	8.24	8.76	9.64	10.38	11.90	13.08	14.98
	×	×	×	×	×	×	×	×	×	×

\*These size charts are intended for general reference only.  
Diamonds of the same carat weight can appear to be different sizes.



## The Jewelry



## HEART

Sometimes the heart sees what is invisible to the eye. Heart shaped diamonds are a brilliant way to remember someone in your heart. It is a unique and unmistakable symbol of love.



## THREE-STONE DIAMOND RING

The ultimate diamond with interwoven gorgeous brilliance shining on your finger. The elegance, quality and sophistication of an emerald-cut, clear colorless diamond is the perfect gift to pledge a lifetime of love.







## MOMENTO

There is always a special momento that you cherish with your loved one. Engrave your most special day in this classic Roman numeral ring.







**BONDING**

Spending quality time is to share your souls. For people who share the similarities and accept the differences, this double circle memorial pendant represents the unbreakable union of two loved ones.



**SHINE**

Let your inward beauty radiate outwardly. With customizable gem color, these earrings are a subtle and delicate way to let your personality shine in all its glory.





## ROSE

Love planted a rose, and the world turned sweet. Your loved one lives on with you in these rose gold diamond earrings, allowing you to grow beyond the loss peacefully.

## FAITH

We all need something to hold on to.  
Let this serve as courage to believe in ourselves and others.  
This longtime customer favourite is an expression of faith and devotion.







# **OMPHALOS**

I love you because the universe helped me find you. This modern and chic design encircles the diamond within a thin metal rim. Bezel setting is the most secure fastener for the stones protecting the round diamond.







PART IV

ORDER

# ORDER PROCEDURE

## Order Submission

Contact us for the latest pricing and order form. Print and fill in the order form. After your order is confirmed, you will receive the following:

- An order ID for tracking and identification.
- A welcome kit with ashes/hair submission guide

## Welcome Kit

Our welcome kit includes a set of sealed containers for your carbon source. We also provide special tools and instructions to make it easy and straightforward to collect the carbon source you want to use.

## Ashes Submission

Please prepare and seal the required amount of materials according to the ashes submission guide. Our local customer service will bring you the detailed information to send the ashes.

The required amount of hair/ashes regardless of the diamond size:

- Cremation ashes From 200g
- Cremation bones From 300g
- Hair From 10g

## Payment

50% deposit is to be settled when the order is confirmed. The other half will be due when we schedule final delivery.

Payment is accepted through:

- Domestic wire transfer
- Credit card

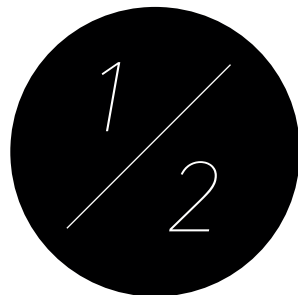
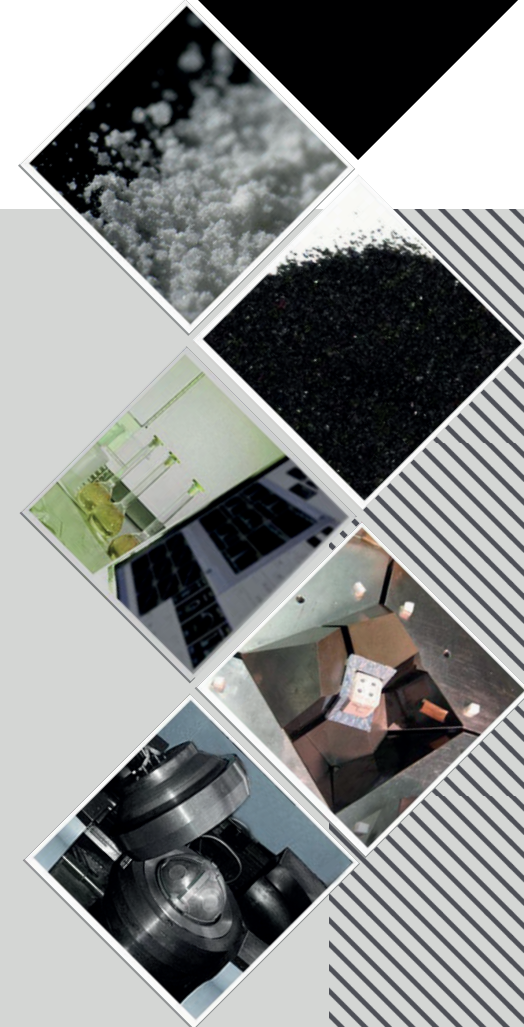
## Visible Process

### Photos of The Intermediate Steps

Sending the ashes of your loved one to Switzerland can be an emotional event and we want you to feel as involved and connected as possible.

### ID Tracking

You will have a unique code for LONITÉ's ID tracking QC, enabling you to see exactly which stage in the process your memorial diamond has reached, at any time.





THE  
HUFFINGTON  
POST

"It's the stories of LONITÉ's customers that moved me the most"

International  
Business  
Times

"LONITÉ, the premium memorial diamond producer"

"Lonité, a Swiss company that specializes in memorial diamond technology"



"The Lonité memorial diamond is a warm tribute to your precious loved one"



THE CHRISTIAN POST

"LONITE AG is the pioneer in this (memorial diamond) technology"

"LONITÉ AG, a world leader in memorial diamond technology"



"LONITÉ creates diamonds by extracting carbon from a sample of hair or ashes."

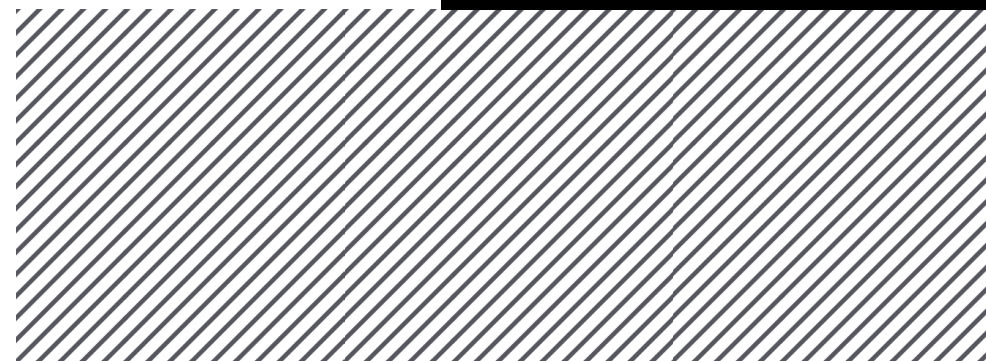


boredpanda

"Each diamond comes out unique"



## MEDIA HIGHLIGHTS



# CONTACT US



## Tracy Highway

“I’ve lost my father and I am glad to help someone else that is grieving. I hope that it makes them feel better to be able to create an amazing diamond of their loved ones to keep close to them always.”



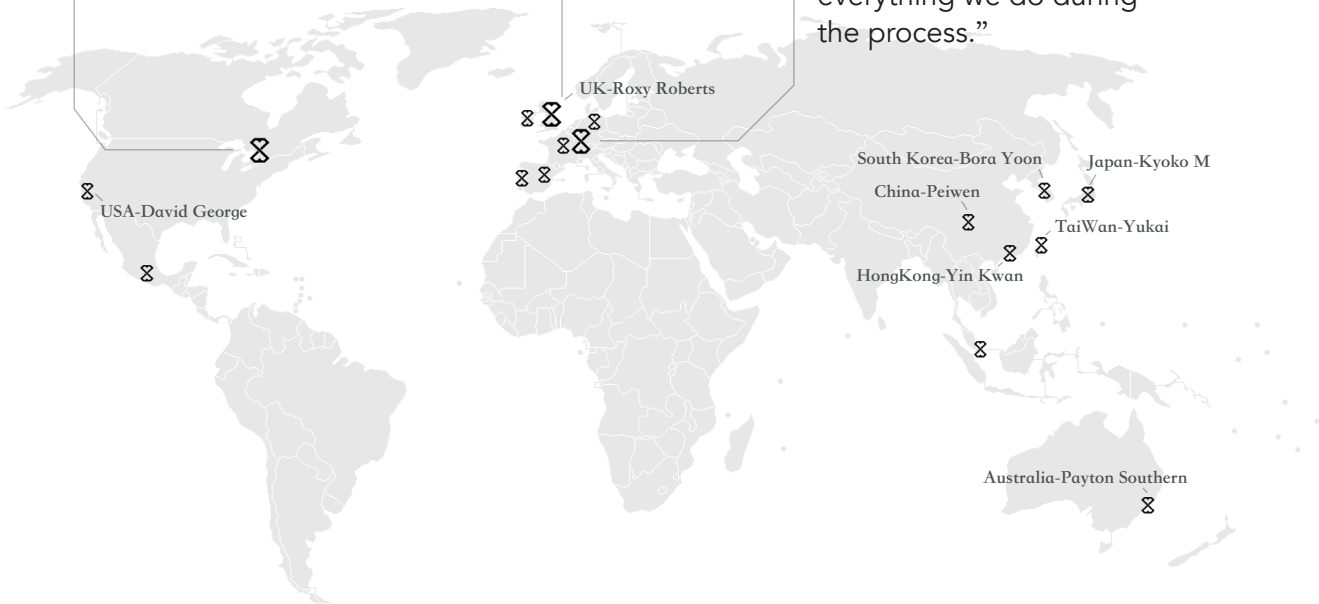
## Christel Groenewald

“I am passionate with helping people in need. I am touched deeply by stories of their loved ones.”



## Damian Vega

“Our clients put a great amount of trust in us for handling their loved ones’ remains. That is why our attention is multiplied in everything we do during the process.”



# Thank you

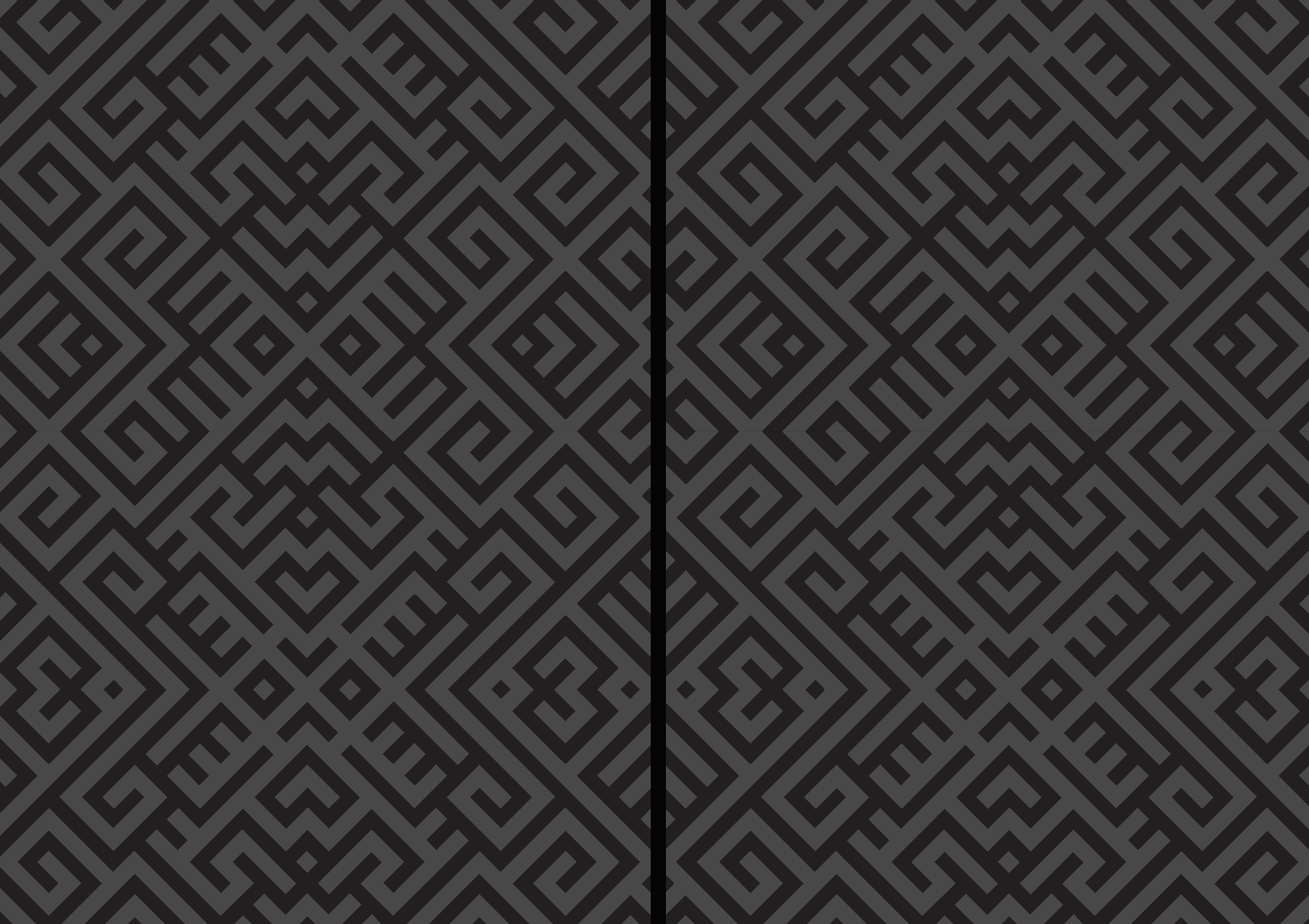
Each Lonité memorial diamond tells a touching love story.  
All of our experience and craftsmanship is devoted to making your love tangible and everlasting.



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LONITÉ AG

