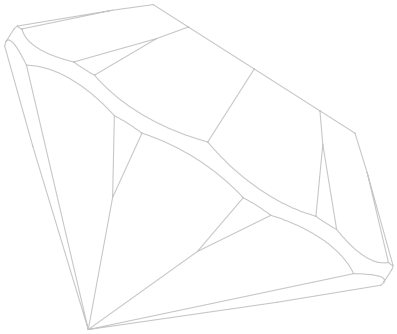
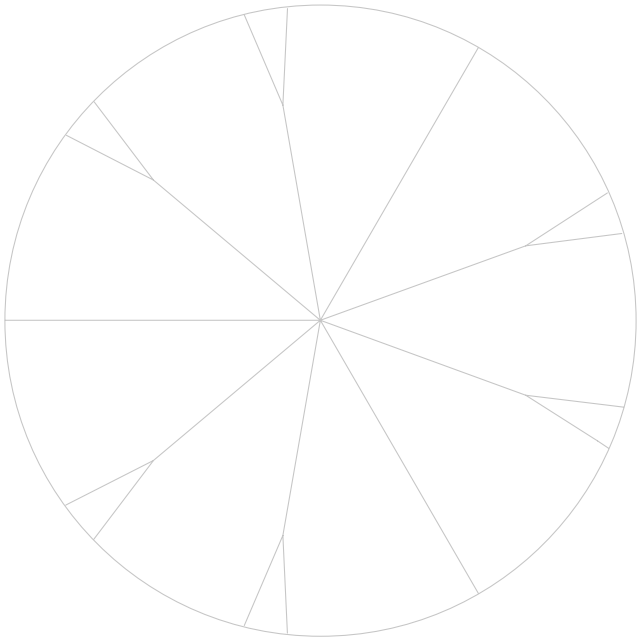
PRECIOSA

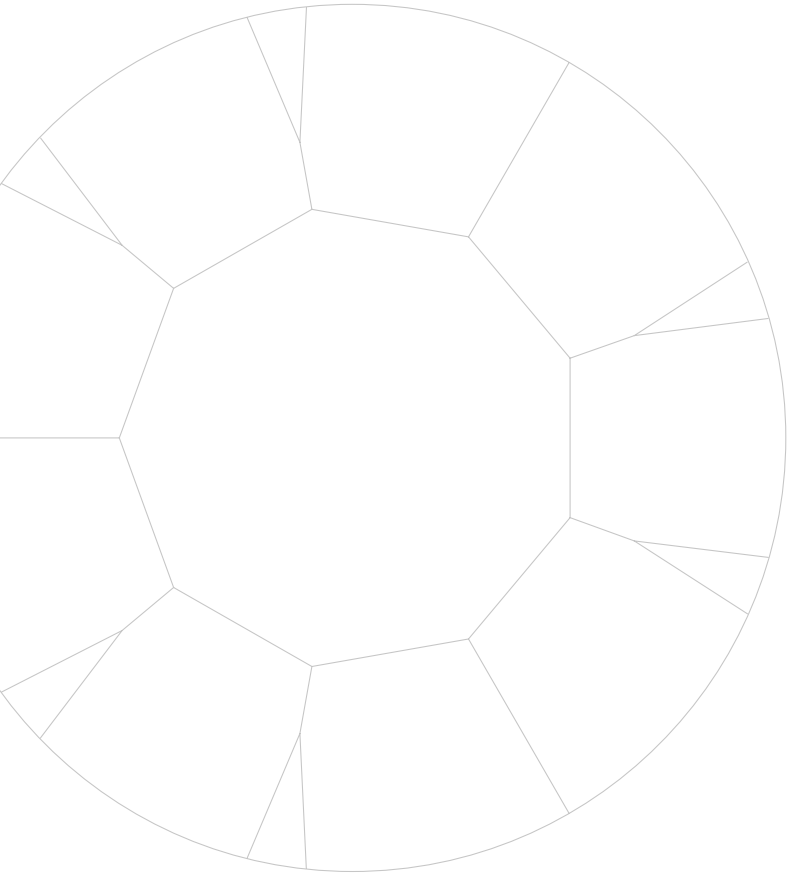
MC Chaton

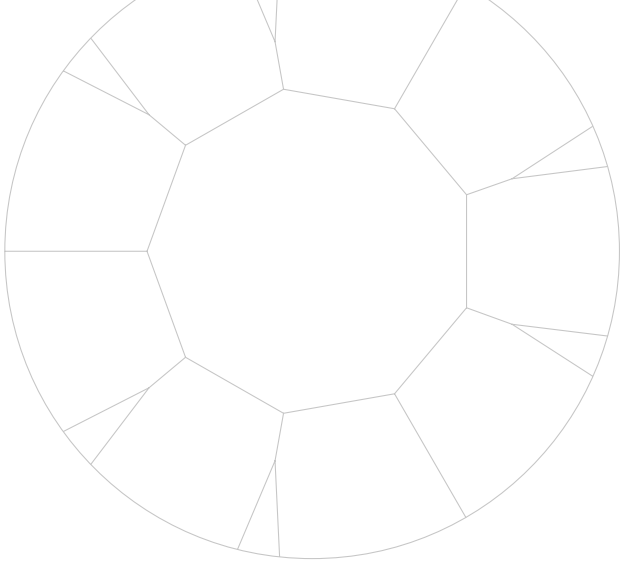
MAXIMA

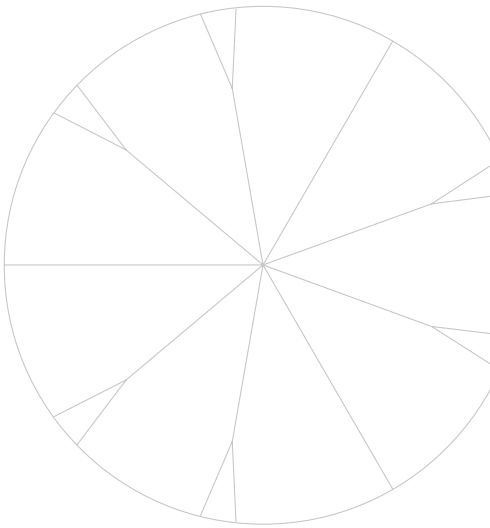
by PRECIOSA®

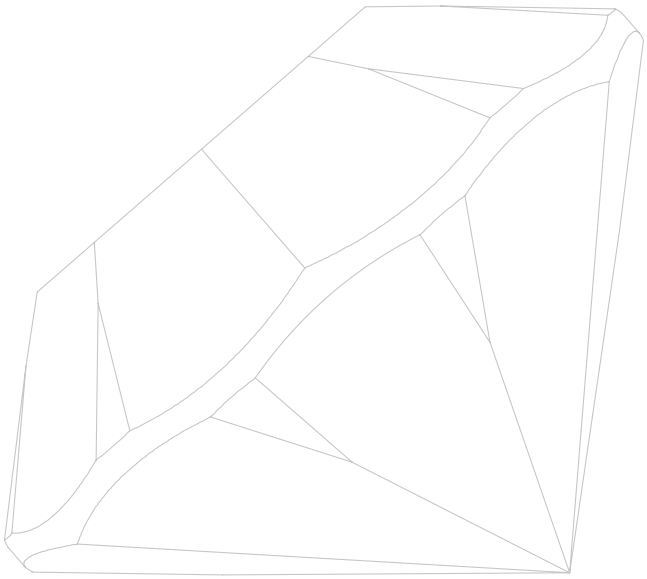












WELCOME TO PRECIOSA

The master craftsmen at Preciosa have devoted themselves to crystal cutting for generations. Preciosa was established in 1948 and has continued the century-old glass making tradition of North Bohemia. Our reputation for excellence has endured over the past sixty years. Today, we use only state-of-the art technology in our manufacturing process. We are well known for producing machine-cut crystal components. In the jewellery trade our name is synonymous with quality, placing Preciosa in a class of its own worldwide. When you choose Preciosa as a supplier, you gain a partner you can rely on.

" *The name Preciosa is derived from Latin, meaning precious, costly or valuable…*

PRECIOSA Crystal Components

For centuries, Bohemia, a region of the Czech Republic, has been known for its crystal. It was here that the art of crystal cutting was perfected. Delicate elegance, captivating sparkle and exceptional brilliance are the distinctive characteristics that make PRECIOSA Crystal Components an internationally recognized symbol of quality.

The PRECIOSA Crystal Components is a guarantee of the finest quality, 100% Czech-made product available only from Preciosa.

MAIN FEATURES

1

CRYSTAL

The Look and Feel
of Full-Lead Crystal

2

CUT

Perfect Geometry
and Improved Optical Properties

3

CONSISTENCY

European
Quality and Reliability

4

CONFIDENCE

Superior Durability and
Easy Proof of Authenticity

5

CERTIFICATION

Taking Responsibility
for Tomorrow

MAXIMA by PRECIOSA®
Lead-Free Brilliance

MAXIMA is the premium Preciosa lead-free* quality. It is the state of the art in crystal components and meets the highest standards of quality and ecological certification. MAXIMA uses the most advanced crystal technologies together with several internationally patented processes to create a unique combination of sparkling material and brilliant, patented cut.

MAXIMA's optical-aesthetic properties are by far superior to most other lead-free glass components on the market today. Its much improved cut also makes it instantaneously identifiable.

MAXIMA by Preciosa® is 100% made in the Czech Republic.

* Lead content < 0.009 % (< 90 ppm)

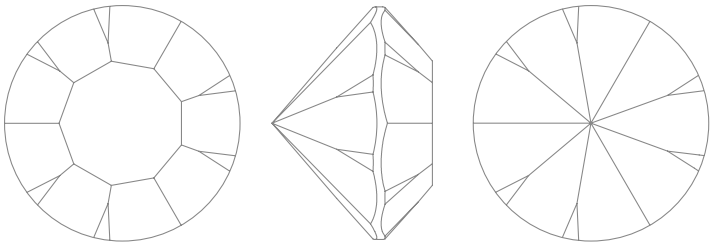
Lead-Free
Brilliance

MC CHATON
***MAXIMA** by PRECIOSA®*

MC Chaton MAXIMA combines, for the first time in history, high-quality lead-free* crystal made with Preciosa® *Hi-Pure Crystal*™ technology with an original patented 15-facet cut which is foiled with the innovative *Dura-Foiling*™ layer.

The result is a Preciosa component of unrivalled optical-aesthetic properties, outstanding resilience, exceptional durability, and one whose authenticity is quickly and unmistakably verifiable.

ART. **431 11 615**



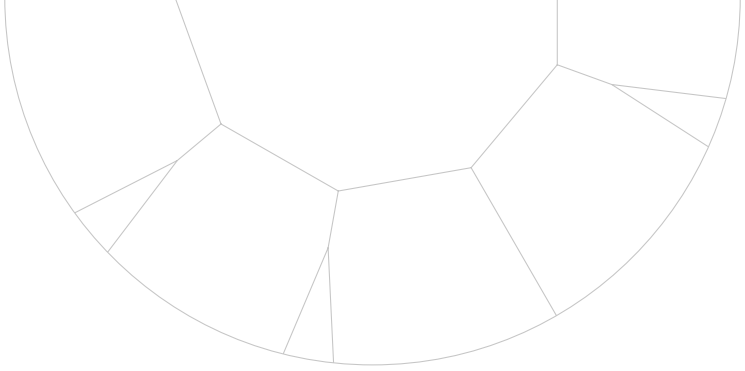
* Lead content < 0.009 % (< 90 ppm)

The Look and Feel of Full-Lead Crystal

The patented combination of raw materials along with *Hi-Pure Crystal* ™ technology, a unique manufacturing process developed by Preciosa researchers to produce crystal components with spectacular brilliance, makes it possible to create lead-free* crystal with a refractive index of 1.585.

As a result, MC Chaton MAXIMA looks and feels just like a full-lead crystal component and its optical properties are by far superior to most other lead-free glass components on the market today. MC Chaton MAXIMA also meets the ISO „Ultra Clear" IWA08 classification.

* Lead content < 0.009 % (< 90 ppm)



2 CUT

Perfect Geometry and Improved Optical Properties

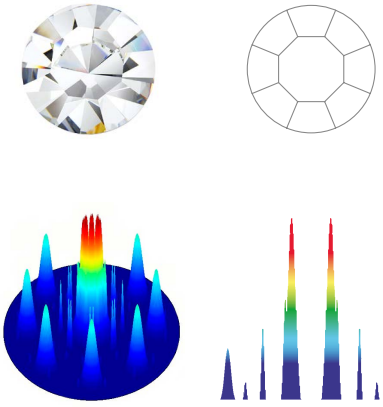
The patented 15-facet cut was optimized by the most advanced gemological methods for the MC Chaton MAXIMA. Specially designed to allow the maximum dispersion of light, it eliminates unwanted dark areas that are present in a traditional 8-facet cut.

Never before have crystal stones been so close in brilliance and beauty to true diamonds. The overall appearance of this innovative cut is the result of perfect geometry and faultless precision of each facet.

When compared to a regular 8-facet cut, the internationally patented 15-facet MC Chaton MAXIMA, consisting of nine large and six smaller facets, provides:

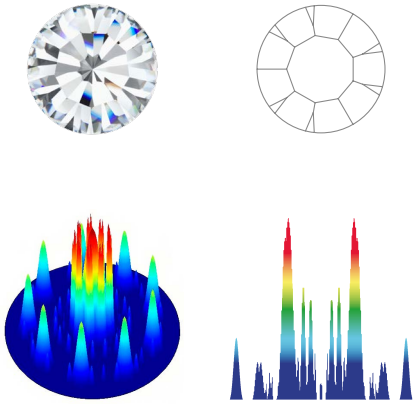
- ✓ 2x better light distribution
- ✓ 2x more frequent scintillation with intense fire effects
- ✓ Significantly greater brightness
- ✓ Elimination of unwanted dark areas
- ✓ Visible differentiation due to an exclusive-looking cut

MC CHATON
MARKET STANDARD
8-FACET



100% Light Distribution

MC CHATON MAXIMA
ART. 431 11 615
15-FACET



200% Light Distribution

3 CONSISTENCY

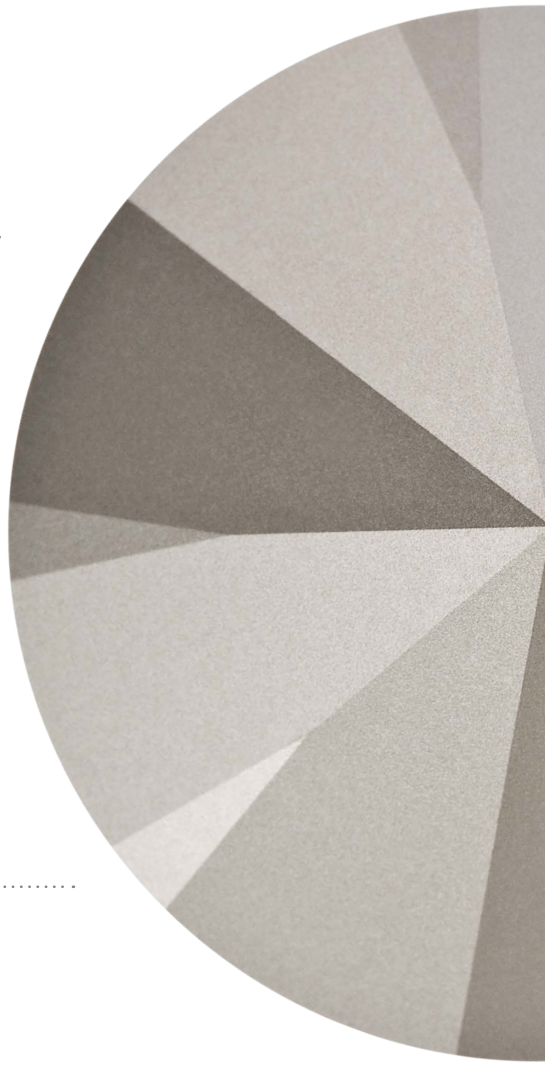
European Quality and Reliability

MAXIMA by Preciosa® is 100% made in the Czech Republic under EU guidelines with ecologically responsible and sustainable technologies and processes.

MC Chaton MAXIMA is offered in a full range of 43 colours, 17 coatings and 53 sizes. It is characterized by tighter colour standards enabling higher stability of shades and improved size consistency which results in an overall defect rate of less than 1%.

The colour range of MC Chaton MAXIMA, the premium product by Preciosa, will be regularly extended to match Pantone's colour forecasting, allowing our partners to stay in harmony with current fashion trends.

Superior Durability and Easy Proof of Authenticity



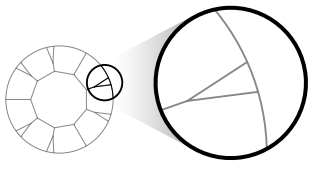
SUPERIOR DURABILITY

MC Chaton MAXIMA is foiled with the innovative *Dura-Foiling*™ layer, which guarantees perfect light reflection and superior resilience. The cool goldish-silver *Dura-Foiling*™ layer, made by eliminating heavy metals, meets manufacturers' highest demands for an ecological and safe product. The neutral colour of the foiling is suitable for any application.

The *Dura-Foiling*™ formula prevents stones from peeling off when glued or set into clay. It has excellent resistance to corrosion caused by electroplating chemicals, chlorine, salt water and perfumes. The foiling's improved FLPR* also allows easier soft soldering.

EASY PROOF OF AUTHENTICITY

The combination of the new patented cut and *Dura-Foiling*™ layer allows fast and easy verification of the product's authenticity and quality at every stage of the supply chain.



MC Chaton MAXIMA has newly designed original and improved packaging for easy verification.

* Foiling Limitary Point of Resistance – internal parameter defining durability of foiling

PACKAGING OF MAXIMA

The MC Chaton MAXIMA now comes in an improved packaging.

Sizes ss00 – ss40 come in thicker envelopes with added padding for better protection of the product during shipping and handling.

Sizes ss45 – ss50 are packaged in more convenient redesigned boxes.

In addition, both envelopes and boxes now have:

- ✓ A more luxurious look and feel
- ✓ Enhanced protection against counterfeiting (hologram safety seal, 3D printing)
- ✓ A unique bar code
- ✓ A depiction of the product
- ✓ The Preciosa® GENUINE CZECH CRYSTAL™ logo

Envelopes

Boxes

Taking Responsibility for Tomorrow

Preciosa is a European company that believes in supporting the preservation of the environment. We enforce environmentally safe working conditions and utilize ecologically responsible technologies.

The entire MAXIMA product line is lead-free*. As a result, MAXIMA meets all lead-free crystal designation requirements. In the majority of available colours**, MAXIMA does not contain cadmium or chrome^{6+}. The special *Dura-Foiling*™ protective layer does not contain any heavy metals.

The MAXIMA product line is suitable for children's jewellery: it is tested in SGS laboratories and the ÖTI Institute.

CERTIFICATION

The MAXIMA product line is tested by authorized international laboratories, SGS and ÖTI, and meets the following world standards:

- ✓ **ASTM F2923-11**
  Standard Specification for Consumer Product Safety for Children's Jewellery
- ✓ **ASTM F963-11**
  Standard Consumer Safety Specification for Toy Safety
- ✓ **CPSC 16 CFR 1303**
  Lead in a Surface Coating
- ✓ **CPSIA**
  Consumer Product Safety Improvement Act
- ✓ **Directive 2009/48/EC**
  Safety of Toys
- ✓ **OEKO-TEX Standard 100**
  Product Class II

COMPLIANCE

The MAXIMA product line conforms to the following world standards:

- ✓ **REACH – Registration, Evaluation, Authorisation and Restriction of Chemical Substances**
- ✓ **RoHS – Restriction on Use of Hazardous Substances** **

* Lead content < 0.009 % (< 90 ppm)

** Except Citrine, Coral, Garnet, Hyacinth, Light Siam, Olivine, Siam, Sun.

For further information regarding compliance or application recommendations please refer to our website, **www.preciosa.com**, or contact our sales department at **info@preciosa.com**.

PRODUCT INFORMATION

Product Range

The MC Chaton MAXIMA comes in the full range of 43 colours, 17 coatings and 53 sizes. The patented 15-facet cut is available in sizes ss2.5 – ss50. Sizes ss00 – ss2 come in the standard 8-facet cut.

MC CHATON MAXIMA | *ART.* ***431 11 615***

The 15-facet cut (9 large and 6 smaller facets) is supplied in sizes ss2.5 – ss50.

MC CHATON MAXIMA | *ART.* ***431 11 111***

The 8-facet cut is supplied in sizes ss00 – ss2.

The small 431 11 111 MAXIMA chatons, just like the 431 11 615 chatons:

- ✓ Are lead-free*
- ✓ Have improved size consistency and geometry
- ✓ Are foiled with the *Dura-Foiling*™ layer
- ✓ Come in the newly designed packaging

* Lead content < 0.009 % (< 90 ppm)

Colours

Crystal*
00030

Jet*
23980

White Opal*
01000

Black Diamond*
40010

Aquamarine
60000

Aqua Bohemica*
60010

Turquoise
63030

Light Sapphire*
30020

Sapphire*
30050

Montana*
30340

Capri Blue*
60310

Indicolite
60100

Blue Zircon*
60230

Chrysolite
50000

Peridot*
50520

Emerald*
50730

Olivine*
50230

Jonquil*
80100

Citrine
80310

Topaz*
10070

Light Colorado Topaz*
10330

Smoked Topaz*
10220

Gold Quartz
00530

Light Peach*
90300

Rose Opal
71350

Light Rose*
70020

Rose*
70010

Indian Pink
70040

Fuchsia*
70350

Ruby
90110

Sun
90310

Hyacinth*
90040

Padparadscha
90350

Coral
93180

Light Siam*
90070

Siam*
90090

Garnet
90120

Burgundy
90100

Amethyst*
20050

Light Amethyst*
20020

Violet*
20310

Tanzanite*
20410

Purple Velvet
20490

Coatings

Crystal AB
00030 AB

Crystal Argent Flare
00030 AgF

Crystal Velvet**
00030 Vel

Crystal Honey
00030 Hon

Crystal Celsian
00030 Cel

Crystal Blond Flare**
00030 BdF

Crystal Aurum**
00030 Aur

Crystal Starlight Gold**
00030 StG

Crystal Monte Carlo**
00030 MtC

Crystal Capri Gold**
00030 CaG

Crystal Apricot**
00030 Apri

Crystal Vitrail Light**
00030 VL

Crystal Vitrail Medium**
00030 VM

Crystal Bermuda Blue**
00030 BBl

Crystal Heliotrope**
00030 Hel

Crystal Labrador**
00030 Lab

Jet Hematite**
23980 Hem

* Products with these coatings are not resistant to plating and similar processing.

NOTE:

Coatings which are not in the standard offer are available by special request only.

For the standard offer please see pages 22 – 25.

Slight deviation in colour shades is unavoidable.

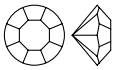
NUMERICAL ORDER

00030 ..... Crystal
00030 20031 AB ..... Crystal AB
00030 22531 Cel ..... Crystal Celsian
00030 23531 Hon ..... Crystal Honey
00030 23931 BdF ..... Crystal Blond Flare
00030 24231 AgF ..... Crystal Argent Flare
00030 26231 Aur ..... Crystal Aurum
00030 26536 VL ..... Crystal Vitrail Light
00030 26636 Apri ..... Crystal Apricot
00030 27031 Lab ..... Crystal Labrador
00030 27131 CaG ..... Crystal Capri Gold
00030 27731 MtC ..... Crystal Monte Carlo
00030 27931 Vel ..... Crystal Velvet
00030 28136 VM ..... Crystal Vitrail Medium
00030 29536 Hel ..... Crystal Heliotrope
00030 29636 BBl ..... Crystal Bermuda Blue
00530 ..... Gold Quartz
01000 ..... White Opal
10070 ..... Topaz
10220 ..... Smoked Topaz
10330 ..... Light Colorado Topaz
20020 ..... Light Amethyst
20050 ..... Amethyst
20310 ..... Violet
20410 ..... Tanzanite
20490 ..... Purple Velvet
23980 ..... Jet
23980 27231 Hem ..... Jet Hematite
30020 ..... Light Sapphire
30050 ..... Sapphire
30340 ..... Montana
40010 ..... Black Diamond
50000 ..... Chrysolite
50230 ..... Olivine
50520 ..... Peridot
50730 ..... Emerald
60000 ..... Aquamarine
60010 ..... Aqua Bohemica
60100 ..... Indicolite
60230 ..... Blue Zircon
60310 ..... Capri Blue
63030 ..... Turquoise
70010 ..... Rose
70020 ..... Light Rose
70040 ..... Indian Pink
70350 ..... Fuchsia
80100 ..... Jonquil
80310 ..... Citrine
90040 ..... Hyacinth
90070 ..... Light Siam
90090 ..... Siam
90100 ..... Burgundy
90110 ..... Ruby
90120 ..... Garnet
90300 ..... Light Peach
90310 ..... Sun
90350 ..... Padparadscha
93180 ..... Coral

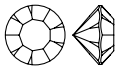
ALPHABETICAL ORDER

A Amethyst 20050
Aqua Bohemica 60010
Aquamarine 60000
B Black Diamond 40010
Blue Zircon 60230
Burgundy 90100
C Capri Blue 60310
Chrysolite 50000
Citrine 80310
Coral 93180
Crystal 00030
Crystal AB ..... 00030 20031 AB
Crystal Apricot ..... 00030 26636 Apri
Crystal Argent Flare ..... 00030 24231 AgF
Crystal Aurum ..... 00030 26231 Aur
Crystal Bermuda Blue ..... 00030 29636 BBl
Crystal Blond Flare ..... 00030 23931 BdF
Crystal Capri Gold ..... 00030 27131 CaG
Crystal Celsian ..... 00030 22531 Cel
Crystal Heliotrope ..... 00030 29536 Hel
Crystal Honey ..... 00030 23531 Hon
Crystal Labrador ..... 00030 27031 Lab
Crystal Monte Carlo ..... 00030 27731 MtC
Crystal Velvet ..... 00030 27931 Vel
Crystal Vitrail Light ..... 00030 26536 VL
Crystal Vitrail Medium ..... 00030 28136 VM
E Emerald 50730
F Fuchsia 70350
G Garnet 90120
Gold Quartz 00530
H Hyacinth 90040
I Indian Pink 70040
Indicolite 60100
J Jet 23980
Jet Hematite ..... 23980 27231 Hem
Jonquil 80100
L Light Amethyst 20020
Light Colorado Topaz 10330
Light Peach 90300
Light Rose 70020
Light Sapphire 30020
Light Siam 90070
M Montana 30340
O Olivine 50230
P Padparadscha 90350
Peridot 50520
Purple Velvet 20490
R Rose 70010
Ruby 90110
S Sapphire 30050
Siam 90090
Smoked Topaz 10220
Sun 90310
T Tanzanite 20410
Topaz 10070
Turquoise 63030
V Violet 20310
W White Opal 01000

MC Chaton MAXIMA

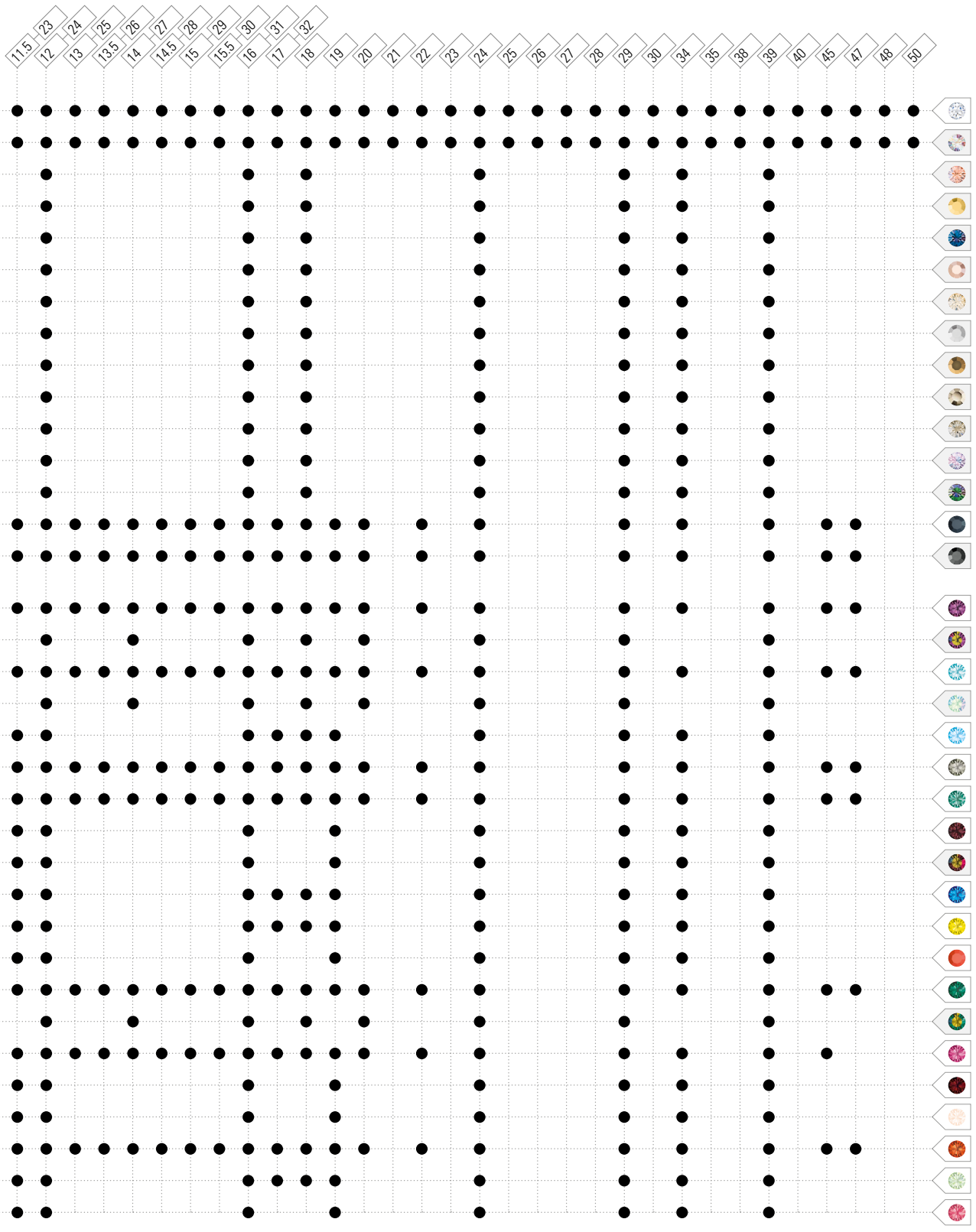


ART. **431 11 111** | SIZE ss00 – ss2



ART. **431 11 615** | SIZE ss2.5 – ss50

COLOUR	ss	pp	00	0	1	2	2.5	3	3.5	4	4.5	5	5.5	6	6.5	7	7.5	8	8.5	9	9.5	10	11
Crystal | 00030 (DF)		2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	
Crystal AB | 00030 (TC) (DF)																							
Crystal Apri | 00030 (BC) (A)																							
Crystal Aur | 00030 (TC) (DF)																							
Crystal BBl | 00030 (BC) (A)																							
Crystal CaG | 00030 (TC) (DF)																							
Crystal Hon | 00030 (TC) (DF)																							
Crystal Lab | 00030 (TC) (DF)																							
Crystal MtC | 00030 (TC) (DF)																							
Crystal StG | 00030 (TC) (DF)																							
Crystal Vel | 00030 (TC) (DF)																							
Crystal VL | 00030 (BC) (A)																							
Crystal VM | 00030 (BC) (A)																							
Jet | 23980 (DF/U)																							
Jet Hem | 23980 (TC) (DF/U)																							
Amethyst | 20050 (DF)																							
Amethyst AB | 20050 (TC) (DF)																							
Aqua Bohemica | 60010 (DF)																							
Aqua Bohemica AB | 60010 (TC) (DF)																							
Aquamarine | 60000 (DF)																							
Black Diamond | 40010 (DF)																							
Blue Zircon | 60230 (DF)																							
Burgundy | 90100 (DF)																							
Burgundy AB | 90100 (TC) (DF)																							
Capri Blue | 60310 (DF)																							
Citrine | 80310 (DF)																							
Coral | 93180 (U)																							
Emerald | 50730 (DF)																							
Emerald AB | 50730 (TC) (DF)																							
Fuchsia | 70350 (DF)																							
Garnet | 90120 (DF)																							
Gold Quartz | 00530 (DF)																							
Hyacinth | 90040 (DF)																							
Chrysolite | 50000 (DF)																							
Indian Pink | 70040 (DF)																							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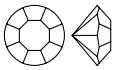
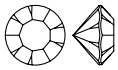
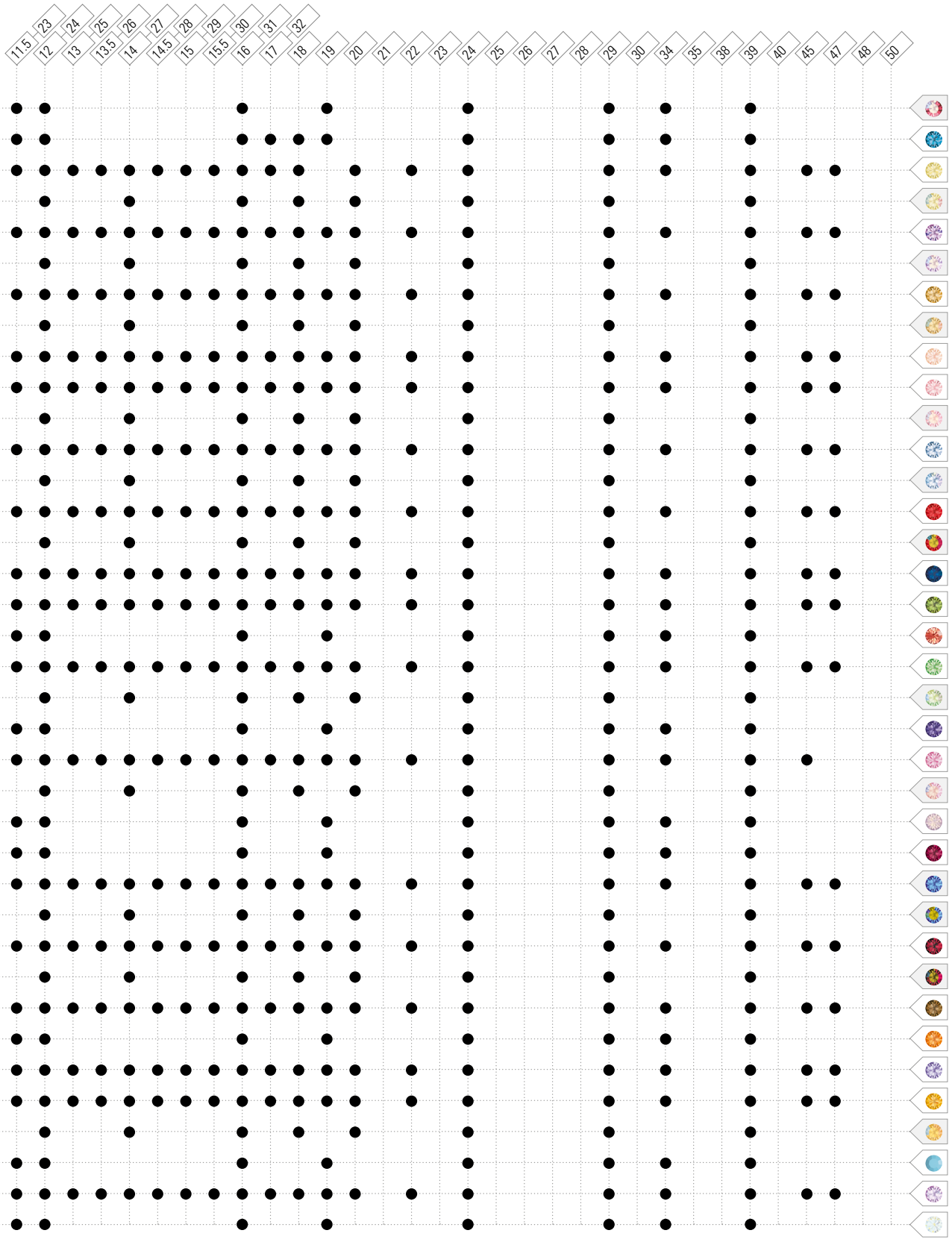


ART. **431 11 111** | SIZE ss00 – ss2



ART. **431 11 615** | SIZE ss2.5 – ss50

COLOUR	ss	pp	00	0	1	2	2.5	3	3.5	4	4.5	5	5.5	6	6.5	7	7.5	8	8.5	9	9.5	10	11	12	13	14	15	16	17	18	19	20	21	22
Indian Pink AB | 70040 (TC) (DF)										●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
Indicolite | 60100 (DF)			●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
Jonquil | 80100 (DF)			●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
Jonquil AB | 80100 (TC) (DF)							●	●	●	●	●	●	●	●	●	●	●	●	●	●			●									●		
Light Amethyst | 20020 (DF)			●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
Light Amethyst AB | 20020 (TC) (DF)							●	●	●	●	●	●	●	●	●	●	●	●	●	●			●									●		
Light Colorado Topaz | 10330 (DF)			●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
Light Color. Topaz AB | 10330 (TC) (DF)							●	●	●	●	●	●	●	●	●	●	●	●	●	●			●									●		
Light Peach | 90300 (DF)			●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
Light Rose | 70020 (DF)			●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
Light Rose AB | 70020 (TC) (DF)							●	●	●	●	●	●	●	●	●	●	●	●	●	●			●									●		
Light Sapphire | 30020 (DF)			●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
Light Sapphire AB | 30020 (TC) (DF)							●	●	●	●	●	●	●	●	●	●	●	●	●	●			●									●		
Light Siam | 90070 (DF)			●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
Light Siam AB | 90070 (TC) (DF)							●	●	●	●	●	●	●	●	●	●	●	●	●	●			●									●		
Montana | 30340 (DF)			●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
Olivine | 50230 (DF)			●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
Padparadscha | 90350 (DF)										●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
Peridot | 50520 (DF)			●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
Peridot AB | 50520 (TC) (DF)							●	●	●	●	●	●	●	●	●	●	●	●	●	●			●									●		
Purple Velvet | 20490 (DF)										●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
Rose | 70010 (DF)			●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
Rose AB | 70010 (TC) (DF)							●	●	●	●	●	●	●	●	●	●	●	●	●	●			●									●		
Rose Opal | 71350 (DF)										●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
Ruby | 90110 (DF)										●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
Sapphire | 30050 (DF)			●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
Sapphire AB | 30050 (TC) (DF)							●	●	●	●	●	●	●	●	●	●	●	●	●	●			●									●		
Siam | 90090 (DF)			●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
Siam AB | 90090 (TC) (DF)							●	●	●	●	●	●	●	●	●	●	●	●	●	●			●									●		
Smoked Topaz | 10220 (DF)			●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
Sun | 90310 (DF)										●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
Tanzanite | 20410 (DF)			●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
Topaz | 10070 (DF)			●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
Topaz AB | 10070 (TC) (DF)							●	●	●	●	●	●	●	●	●	●	●	●	●	●			●									●		
Turquoise | 63030 (U)										●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
Violet | 20310 (DF)			●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
White Opal | 01000 (DF)			●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●



TC – TOP COATING

BC – BOTTOM COATING

A – ALUMINIUM
PROTECTIVE LAYER

DF – DURA-FOILING™

Conversion Table of Sizes

ss	pp	ø mm	1:1
00	2	0.90–1.00	
0	3	1.00–1.10	
1	4	1.10–1.20	
2	5	1.20–1.30	
2 1/2	6	1.30–1.35	
3	7	1.35–1.40	
3 1/2	8	1.40–1.50	
4	9	1.50–1.60	
4 1/2	10	1.60–1.70	
5	11	1.70–1.80	
5 1/2	12	1.80–1.90	
6	13	1.90–2.00	
6 1/2	14	2.00–2.10	
7	15	2.10–2.20	
7 1/2	16	2.20–2.30	
8	17	2.30–2.40	
8 1/2	18	2.40–2.50	
9	19	2.50–2.60	
9 1/2	20	2.60–2.70	
10	21	2.70–2.80	
11	22	2.80–2.90	
11 1/2	23	2.90–3.00	
12	24	3.00–3.20	
13	25	3.20–3.30	
13 1/2	26	3.30–3.40	
14	27	3.40–3.50	
14 1/2	28	3.50–3.60	
15	29	3.60–3.70	
15 1/2	30	3.70–3.80	
16	31	3.80–4.00	
17	32	4.00–4.20	
18	—	4.20–4.40	
19	—	4.40–4.60	
20	—	4.60–4.80	
21	—	4.80–4.90	
22	**—**	**4.90–5.10**	
23	**—**	**5.10–5.25**	
24	**—**	**5.25–5.45**	
25	**—**	**5.45–5.60**	
26	—	5.60–5.80	
27	—	5.80–6.00	
28	**—**	**6.00–6.15**	
29	**—**	**6.15–6.35**	
30	**—**	**6.35–6.50**	
34	**—**	**7.05–7.25**	
35	**—**	**7.25–7.50**	
38	**—**	**7.90–8.15**	
39	**—**	**8.15–8.40**	
40	**—**	**8.40–8.65**	
45	**—**	**9.85–10.20**	
47	**—**	**10.55–10.90**	
48	**—**	**10.90–11.30**	
50	**—**	**11.70–11.95**	

Dimension tolerances of marked sizes were changed.

Packaging and Weight

MC Chaton MAXIMA | ART. 431 11 615

Size		Packaging Unit	Number of Stones in Packaging Unit	Number of Stones in Standard Box	Average Weight of Standard Box (Crystal)
SS	PP	TYPE	GROSS	GROSS	GRAM
2.5	6	ENVELOPE	10	1,300	1,200
3	7	ENVELOPE	10	1,300	1,200
3.5	8	ENVELOPE	10	1,200	1,350
4	9	ENVELOPE	10	1,200	1,450
4.5	10	ENVELOPE	10	1,100	1,400
5	11	ENVELOPE	10	1,100	1,500
5.5	12	ENVELOPE	10	1,000	1,550
6	13	ENVELOPE	10	1,000	1,650
6.5	14	ENVELOPE	10	1,000	1,750
7	15	ENVELOPE	10	900	1,750
7.5	16	ENVELOPE	10	800	1,600
8	17	ENVELOPE	10	800	1,700
8.5	18	ENVELOPE	10	700	1,650
9	19	ENVELOPE	10	700	1,750
9.5	20	ENVELOPE	10	700	1,800
10	21	ENVELOPE	10	700	1,900
11	22	ENVELOPE	10	700	2,100
11.5	23	ENVELOPE	10	600	2,100
12	24	ENVELOPE	10	600	2,200
13	25	ENVELOPE	10	500	2,150
13.5	26	ENVELOPE	10	500	2,300
14	27	ENVELOPE	10	500	2,400
14.5	28	ENVELOPE	10	500	2,600
15	29	ENVELOPE	10	500	2,700
15.5	30	ENVELOPE	10	450	2,600
16	31	ENVELOPE	10	450	2,700
17	32	ENVELOPE	10	350	2,700
18		ENVELOPE	10	300	2,650
19		ENVELOPE	10	300	2,800
20		ENVELOPE	5	220	2,500
21		ENVELOPE	5	200	2,450
22		ENVELOPE	5	200	2,700
23		ENVELOPE	5	180	2,600
24		ENVELOPE	5	160	2,500
25		ENVELOPE	5	160	2,700
26		ENVELOPE	2	90	1,950
27		ENVELOPE	2	80	1,900
28		ENVELOPE	2	80	2,050
29		CASSETTE	2	80	2,150
30		CASSETTE	2	80	2,200
34		CASSETTE	1	56	2,400
35		CASSETTE	1	56	2,450
38		CASSETTE	1	30	2,000
39		CASSETTE	1	30	2,050
40		CASSETTE	1	25	1,750
45		CASSETTE	1	12	1,300
47		CASSETTE	1	12	1,600
48		CASSETTE	1	10	1,900
50		CASSETTE	1	10	2,000

MC Chaton MAXIMA | ART. 431 11 111

Size		Packaging Unit	Number of Stones in Packaging Unit	Number of Stones in Standard Box	Average Weight of Standard Box (Crystal)
SS	PP	TYPE	GROSS	GROSS	GRAM
00	2	ENVELOPE	10	1,400	1,200
0	3	ENVELOPE	10	1,400	1,200
1	4	ENVELOPE	10	1,400	1,250
2	5	ENVELOPE	10	1,400	1,250

USER INSTRUCTIONS

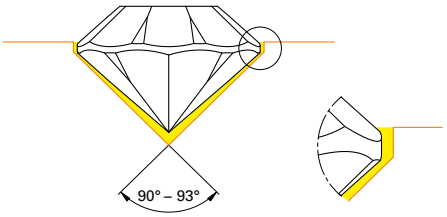
Gluing
Electroplating
Soldering

Preciosa pays close attention to the ongoing improvement of the technical properties of its fashion jewellery stones. Below are some useful tips on how to work with MC Chaton MAXIMA.

Gluing

The correct choice of adhesive is essential for the successful gluing of MAXIMA products onto various materials.

The ideal cavity for the MC Chaton MAXIMA has an angle of 90°–93°. The diameter and depth of the cavity should be at least 0.1mm larger than that of the chaton.



SUITABLE GLUES FOR FASHION JEWELLERY MATERIALS

One-Component Glues

Glue	Producer
Hypo cement	ToolsGS
Pronto CA-50 gel	3M

Two-Component Glues

Glue	Producer
Plus 300 Endfest (UHU Plus Endfest 300)	UHU GmbH
RBC Adhesive 118	RBC Industries, INC
Loctite 0151 Hysol	Loctite Corp. (Henkel Corp.)
Hezhong GH-AAA	Yiwu Hebang Adhesives trad. comp.
Araldite	Huntsman Corp.
Araldit	Ceys
Epoxy Universal	Bison International

CARE INSTRUCTIONS

Machine wash at max. temperature 50 °C (122 °F). Delicate cycle. Turn inside out.	Do not iron.
Do not bleach.	Professional dry clean with petroleum solvent. Delicate cycle. Turn inside out.
Turn inside out and use a low temperature and a gentle drying cycle.	Professional wash. Delicate cycle. Turn inside out.

Electroplating

GENERAL RULES AND RECOMMENDATIONS FOR ELECTROLYTIC FINISHES

MC Chaton MAXIMA with *Dura-Foiling*™ guarantees excellent resistance of the stones' foil layer and effective problem-free application.

Before the electroplating can begin, various preparatory techniques, mainly cleaning the surfaces of the electroplated objects, must occur in order to ensure quality plating.

1. CAREFUL STONE TREATMENT

Setting stones in cup chains must be done cautiously and carefully in order not to chip the stones' edges and to avoid damaging the protective lacquer.

2. PROPER DEGREASING

Hot Degreasing

A warm alkaline electrolytic bath is usually used as the first stage of degreasing to remove most of the impurities and soldering residues. After the degreasing process, the product should be rinsed in water at room temperature for 30 seconds. It is possible to markedly accelerate this process by using ultrasound.

Warning: If the degreasing time is too long or the ultrasound used is too strong, the protective lacquer applied to the reflective layer may become damaged.

Electrolytic Degreasing

Electrolytic degreasing is suitable as the second stage of the final degreasing, for fashion jewellery formed from cup chains of brass and other nonferrous metals. Cathodic degreasing is used only.

After electrolytic degreasing, rinsing the product in water at room temperature for 30 seconds is sufficient.

Warning: The recommended current density and degreasing times must not be exceeded; otherwise the stones' reflective layer may become damaged.

For basic bath parameters see table on next page.

3. PICKLING IS REQUIRED (ACTIVATING)

To remove oxides and soldering residues, pickling is carried out in dilute acids (5% HCl or 5-10% H_2SO_4). The product should be rinsed after the pickling process in water at room temperature for 30 seconds.

Warning: Never use nitric acid (HNO_3) for pickling as it etches the tin solder.

For basic bath parameters see table on next page.

4. PLATING

All operations that follow after the fashion jewellery components have been soldered together must be carried out quickly and sequentially to avoid time delays.

For basic bath parameters see table on next page.

Cyanide Copper Plating

» The utmost caution must be exercised when using cyanide copper baths.

» This technique improves the adhesion of the copper deposit to the product's surface. Under certain conditions, copper deposits do not adhere well to the solder used.

Warning:

» The current density and degreasing times must not be exceeded; otherwise the stones' reflective layer may become damaged.

» It is strongly recommended to avoid using cyanide brass or bronzing baths.

Bright Copper Plating

» A glossy sulphurous copper bath is highly recommended because it is able to smooth the unevenness of the product's surface, adding a high gloss to it.

Warning:

» The stones' AB layer, if used, may become unintentionally plated as well, and thus damaged if the recommended plating times are exceeded.

Nickel Plating

» As nickel (Ni) is an allergen, nickel plating is not used for safety reasons. The Ni layer is usually substituted with palladium or silver.

» If it is possible or necessary to use nickel plating, the usual chloride nickel bath is recommended. This bath does not damage fashion jewellery stones.

Warning:

» When stones with the AB layer are used, their surface is often quickly and unintentionally plated. If this is the case, the plating time should not exceed three minutes.

Palladium Plating

» Palladium is used instead of nickel as a white interlayer.

» Using bronze as a substitute for nickel is not suitable because the bronze bath's aggressive nature damages fashion jewellery stones.

Silver Plating

» Even though silvering baths have a high cyanide content and are highly alkaline, they work at room temperature and therefore do not damage the stones.

Rhodium Plating

» Rhodium baths based on sulphates or phosphates deposit highly glossy layers. The baths' chemical properties are not detrimental to fashion jewellery stones.

» Rinsing the product after the final rhodium plating process must be done in two stages:
a) In water at room temperature for 30 seconds.
b) A final rinse in water at a temperature of 60°C/140°F for 30 seconds.

» Rinsing is then followed by drying the product in a dryer at a temperature of T < 90°C/194°F.

Gold Plating

» For gold plating, two types of gilding baths are used: either the alkaline one (pH 9 – 10), or the acid one (pH 3 – 4).

» The gilding bath´s chemical properties are not detrimental to fashion jewellery stones.

» Alkaline baths deposit layers of < 0.2 µm thickness.

» If thicker gold layers are required (up to 1µm), it is necessary to use an acid gilding bath.

» Rinsing the product after the final cold plating process must be done in two stages:
a) In water at room temperature for 30 seconds.
b) A final rinse in water at a temperature of 60°C/140°F for 30 seconds.

» The final rinse is then followed by drying the product in a dryer at a temperature of T < 90°C/194°F.

5. TARNISH PROTECTION

To protect cup fashion jewellery's metal parts, electrophoretic coating (cataphoresis) is commonly used. This technique enables organic lacquers (mostly acrylic water-based) to be deposited evenly on electrically conductive fashion jewellery parts, allowing the glass stones to remain uncoated. The lacquers' chemical properties are not detrimental to fashion jewellery stones.

6. TROUBLESHOOTING

Problem	**Solution**
Imperfect appearance of the product's surface before electroplating	Clean the product thoroughly; first mechanically, then chemically, using a degreasing bath, and finally rinse the product thoroughly.
Rough surface after electroplating (an „orange-peel" texture)	Polish the surface better next time, or perhaps check the technical properties of the electroplating bath used.
Tarnished surfaces	Rinse the product with pure water only – demineralised water (electric conductivity < 15µS/cm) is strongly recommended. Always minimize time delays between individual successive operations.

BASIC PARAMETERS OF ELECTROPLATING BATHS

Operation/ Plating	Bath Description	Temperature		Acidity/ Alkalinity	Time	Current Density	Rinsing		Drying
		°C	°F	pH	Ultrasound Yes / No	A/dm2	1st Stage T= 20° C 68° F	2nd Stage T= 60° C 140° F	T= 90° C 194° F
Hot Degreasing	Alkaline electroless bath	< 60° C	< 140° F	< 12,5	yes<2min no<5min		30 sec.	no	no
Electrolytic Degreasing	Alkaline bath for cathodic degreasing	< 45° C	< 113° F	< 12,0	no < 20 sec.	< 3 A/dm2	30 sec	no	no
Pickling	Dilute acids 5% HCl or 5-10% H_2SO_4	< 30° C	< 85° F	< 1	no < 20 sec.		30 sec.	no	no
Cyanide Copper Plating	Warm cyanide copper bath	< 60° C	< 140° F	< 10,5	no < 30 sec.	< 2 A/dm2	30 sec.	no	no
Bright Copper Plating	Glossy acid sulphurous copper bath	< 30° C	< 85° F	< 1	no < 10 min.	< 3 A/dm2	30 sec.	no	no
Nickel Plating	Chloride or sulphurous nickel bath	< 60° C	< 140° F	4 - 5	no < 20 min.	< 9 A/dm2	30 sec.	no	no
Palladium Plating	Cold, weakly alkaline bath	< 30° C	< 85° F	< 8 - 9	no < 2 min.	< 1 A/dm2	30 sec.	no	no
Silver Plating	Cold cyanide bath	< 30° C	< 85° F	< 12,0	no < 1 min.	< 2 A/dm2	30 sec.	no	no
Rhodium Plating	Sulphate- or phosphate-based baths	< 50° C	< 121° F	< 1	no < 1 min.	< 1 A/dm2	30 sec.	30 sec.	yes
Gold Plating I	Acid gilding bath	< 60° C	< 140° F	2 - 5	no < 1 min.	< 1 A/dm2	30 sec.	30 sec.	yes
Gold Plating II	Alkaline cyanide gilding bath	< 60° C	< 140° F	9 - 10	no < 1 min.	< 1 A/dm2	30 sec.	30 sec.	yes

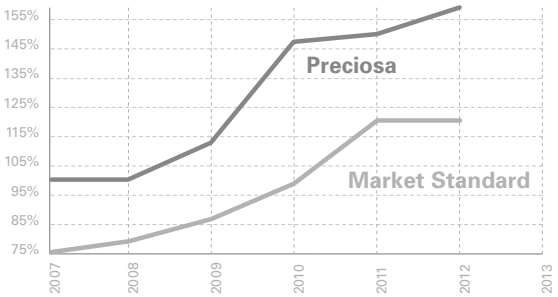
Soldering

THE FOIL'S RESISTANCE – AN IMPORTANT CONDITION FOR SOLDERING

Foiling Limitary Point of Resistibility (FLPR)
Being well aware of the importance of the FLPR parameter, Preciosa constantly advances the FLRP´s frontiers to achieve greater effectiveness.

For decades, fashion jewellery stones by Preciosa have been considered to be among the most resistant in the world. Constant improvements to the foiling formula have made it possible to continuously raise the level of FLPR and to keep ahead of the competition. *Dura-Foiling*™ on the MC Chaton MAXIMA reduces the impact of some faults in the soldering technique, contributes to the immaculate appearance of the final product, and achieves the highest possible manufacturing productivity.

The Development of FLPR between 2007-2012



WORKING PROCEDURE FOR SOLDERING FASHION JEWELLERY COMPONENTS

Degrease the Chain Thoroughly
Before setting the stones in cups, the chain must be degreased and dry. To degrease, you can use either organic solvents or a water solution with suitable detergents. It is also possible to degrease the chain using bright pickling. Thorough degreasing is required in order to avoid burning the surface impurities during soldering. Such residual impurities might later pose an obstacle to achieving quality metal layers created by electroplating techniques that give the product a shiny finish.

Set the Stones in the Chain's Cups
After the chain has been thoroughly degreased, select stones of an adequate size and set them in the chain's cups. Then, using pliers, divide the chain with stones into desired lengths.

Imprint the Sample Product in the Substance
Using tweezers, place the finished sample product on the prepared substance with the top facet of the stones (i.e. table) facing down. Then apply gentle and evenly-distributed pressure to the samples using a flat tool, thus making the samples' imprints in the substance. Then remove the samples carefully from the plate.

Place the Cut Sections of the Chain in the Imprints
Using tweezers, take the prepared sections of the chain and place them in the imprints, laying them so that the stones' tables face down.

Join Individual Chain Sections Together, Using Blowpipe and the Solder
Adjust the flame of the blowpipe. Heat the area surrounding the soldered joint so that the molten solder can thoroughly spill over the area. Touch the heated joint with the solder (soldering wire) and heat once again. Keep heating the solder until it melts completely and fills the microscopic gap in the soldered joint.

Clean the Cooled Product
The Product is Now Ready for Further Treatment
Cleaned and dried, the product can be electroplated.

GENERAL RULES AND USEFUL ADVICE ON SOLDERING

By following the rules and suggestions below and using Preciosa stones, excellent results are guaranteed.

Working with the Girdler's Substance
The girdler's substance must be plastic and workable and mustn't dry out. Its function is to transfer the heat from the soldered product.

Working with the Blowpipe
- Always select the solder's diameter depending on the product's thickness and dimensions.
- You can reduce the probability of damaging the stones by using a blowpipe with an accurately pointed flame that can be aimed at the smallest area of the soldered joint with pinpoint accuracy.
- When soldering, do not aim the tip of the flame at one point of the joint. Continuously move the flame gently along the entire length of the joint.

Working with the Solder (Soldering Wire)

» The amount of solder used when soldering fashion jewellery components (chain cups) must be proportional to the soldered components' size.

» A disproportionately large amount of solder may cause it to run into the cups with set stones. This causes damage to the foil's protective layer on the stones' backs, resulting in an irreversible change to the stones' appearance.

» Too small an amount of solder results in a weakened soldered joint.

» The recommended gap width between soldered components is 0.1 – 0.3 mm.

» The recommended diameter of soldering wire is up to 1mm max.

» The solder's recommended melting point is 190°C/374°F max.

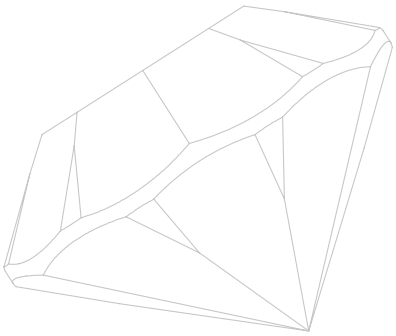
» When soldering, care should be taken to only heat the immediate neighbourhood of the soldered parts, allowing the solder to run into the gap between them.

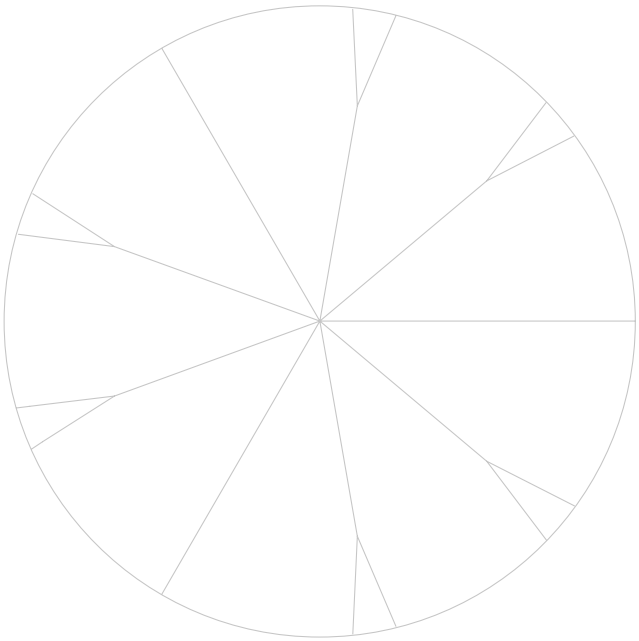
» We do not recommend heating the entire surface of the product with the solder pre-applied to it.

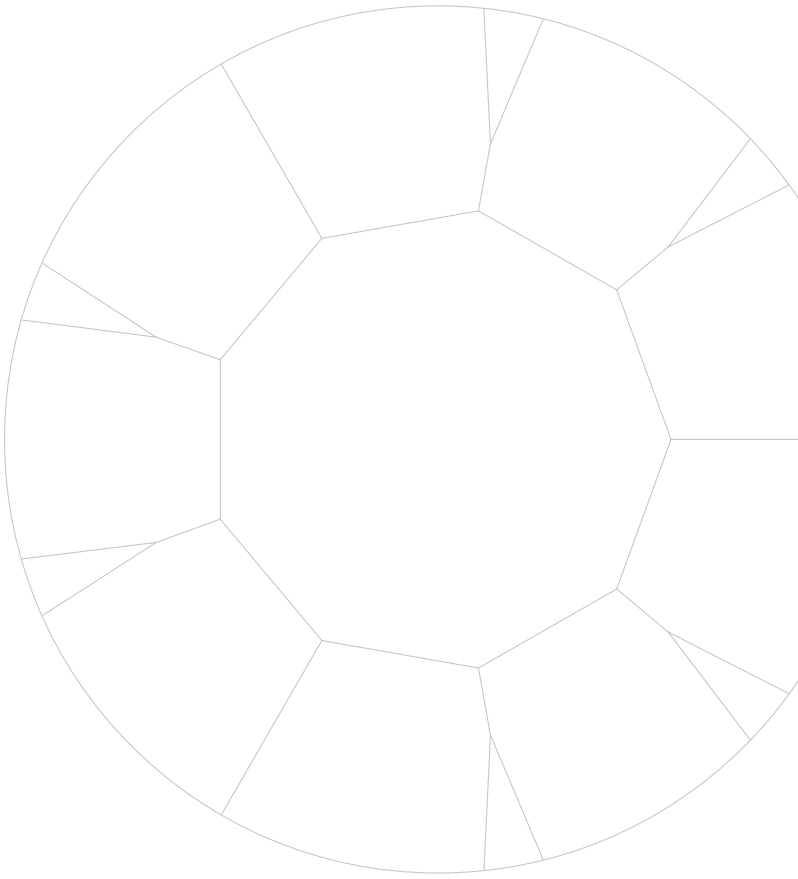
TROUBLESHOOTING

Problem	**Solution**
Faulty imprints	Re-imprint the sample product.
The solder didn't melt – the solder as well as the substance were not heated up sufficiently	Clean the solder as well as the soldered joint mechanically and start soldering again; check that the type of solder used is suitable for soldering, if not, replace it.
Too large an amount of molten solder – caused by repeated soldering or by using unsuitable solder	Remove the solder mechanically and clean the joint, e.g. using fine abrasive paper.
Stones flooded by molten solder – caused by the girdler's inattention, usually heating up the joint for too long	Remove the solder mechanically, sort out the affected stones, replace them with new ones and reset.
Yellow or cracked stones – caused by overheating the stones for an excessively long time	Replace the damaged stones with new ones and set them.

Notes







PRECIOSA | Crystal Components

Preciosa a. s.
Opletalova 3197
466 67 Jablonec nad Nisou
Czech Republic

www.preciosa.com

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