

SWAROVSKI

APPLICATION MANUAL 2016

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Swarovski is the premium brand for the finest crystal embellishments since 1895. It is recognized for its innovative excellence and its collaborations with top-class designers and brands in the fashion, jewelry, accessories, interior design, and lighting industries across the globe.

Available in myriad colors, effects, shapes, and sizes, crystals from Swarovski offer designers a fabulous palette of inspiration, and are produced according to the innovative, lead-free* Advanced Crystal standard. Born out of a passion for detail and high-precision cutting, these precious ingredients impart refined glamour to everything they embellish. They can be recognized by the 'Crystals from Swarovski' seal, which serves as a certificate of authenticity that identifies products made with genuine Swarovski crystals.

A family-owned company for more than 100 years, with values rooted in integrity, respect, and excellence, Swarovski is noted as much for its ethics in business as for its contemporary artistry and innovative flair.

[SWAROVSKI.COM/PROFESSIONAL](https://www.swarovski.com/professional)

* Crystal glass and all other materials containing 0.009% lead or less.



SEAL YOUR SUCCESS

Be part of our exclusive Ingredient Branding program



TAKE THOUSANDS OF CRYSTALS WHEREVER YOU GO

INSPIRATION IS ONLY AN APP AWAY

Wherever you are, whatever you're looking for, search over 15,000 loose elements and 200,000 forward-integrated elements with Swarovski's inspirational new Crystal Collection App. Online or offline, stay app-to-date with the latest innovations and find popular classics – it's easy to install, easy to browse, easy to use.



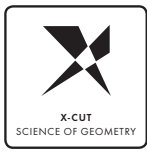
Made for iPad



Made for Tablets

SWAROVSKI.COM/COLLECTIONAPP

EXCELLENCE, THROUGH INNOVATION AND ORIGIN



X-CUT
Advanced optical measurement and high-precision manufacturing deliver premium cuts characterized by unmatched brilliance.



HOTFIX GLUE
The variable temperatures at which Hotfix glue can be activated enable the application of crystals on a broad range of textiles.



PLATINUM PRO
With its new advanced foiling technique, Swarovski has set a new standard in the lifespan of crystals.



CRYSTALS - MADE IN AUSTRIA
The combination of innovation with sustainability and respect for individual wellbeing means that quality is always assured.

PREMIUM, BY SERVICE AND DESIGN



DESIGN SERVICE
Throughout its global network of Design Centers, Swarovski offers exceptional service provided by the industry's best creative talent.



GLOBAL SERVICE
Swarovski's Global Service Network provides customers with dedicated personal assistance on a local level.



APPLICATION SERVICE
A comprehensive range of application services means customers benefit from the extensive experience of leading international experts, as well as internal specialists.



DESIGNER EDITIONS
Creative collaborations with top designers result in exclusive cuts and unique designs for Swarovski crystal.

COMPLIANCE, WITH INTEGRITY



ADVANCED CRYSTAL
Swarovski's patented lead-free* formula has changed the DNA of crystal while still offering the same sparkle, dependability, and variety for which Swarovski is famous.



CLEAR
Regular legal monitoring of chemical requirements and reasonable testing provide customers with the comfort of trust in Swarovski's products.

*Crystal glass and all other materials containing 0.009% lead or less.



OEKO-TEX
Oeko-Tex® Standard 100 Class II (direct contact with skin) certification creates confidence in chemical safety of textile applications.



COMPLIANCE SERVICE
Assessments regarding substance limitations as well as compliance information and advice to support customers in complying with relevant laws, regulations, and voluntary standards.

[SWAROVSKI.COM/PROFESSIONAL](https://www.swarovski.com/professional)

GENERAL INFORMATION

Swarovski offers a comprehensive range of services, tailored to customers' requirements, for the application of Swarovski products.

APPLICATION MANUAL

This Application Manual offers extensive information on the various Application Services provided by Swarovski. Thanks to their outstanding quality, and with the help of specially developed application techniques, Swarovski products can be processed easily and quickly to produce a high-quality finished product. The processes involved are described in this manual on a step-by-step basis, with photos and illustrations.

Each application method contains detailed information on the following areas:

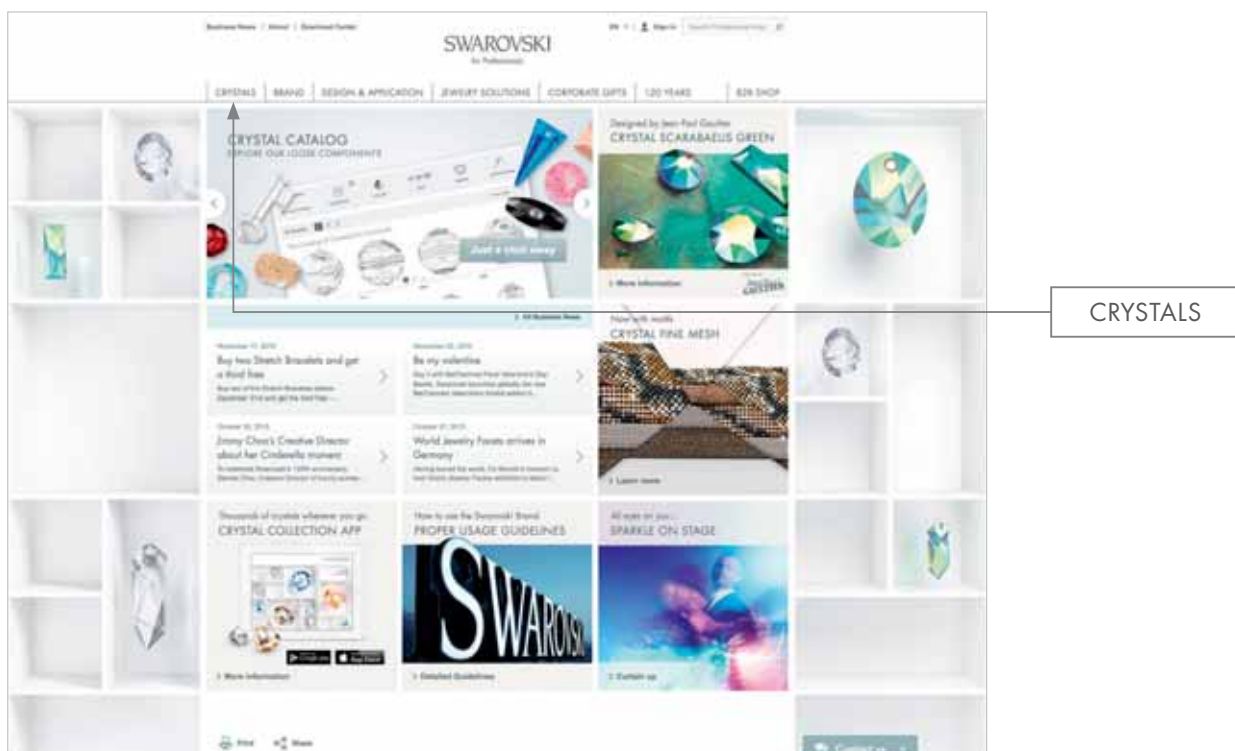
Product Overview	Swarovski products that are suitable for the application technique in question
Machines, Tools, and Aids	List of machines, tools, and aids necessary for application
Suppliers	Selection of suppliers that sell these machines, tools, and aids
Application	Detailed description of the entire application process and the product-specific procedure. Furthermore, the Hotfix Selector outlines extensive application parameters for suitable product and carrier material combinations
Useful Information	Advice and tips on working with Swarovski products
Quick Assistance	A checklist of typical application problems, along with possible causes and recommendations on avoiding them (in each chapter these are marked with a ?!)

Extensive care instructions and further information on laws, regulations, norms, and standards are featured at the end of the manual.

APPLICATION ONLINE: SWAROVSKI.COM/PROFESSIONAL

All the information contained in this manual is regularly updated on the Swarovski products business website (SWAROVSKI.COM/PROFESSIONAL). In addition, application techniques are demonstrated through animations and videos. The site is an excellent way to find out about Swarovski's application services and application techniques.

To gain access to the restricted section of the business website, please contact your local Swarovski representative.



APPLICATION SERVICES

Swarovski offers a comprehensive range of services, tailored to your requirements, for applying Swarovski products. In doing so, the company aims to meet the needs of each industry, and to jointly offer flexible and integrated solutions.

- Technical enquiry service
- Compliance service
- Technical customer support – field services
- Application partner network

Technical enquiry service

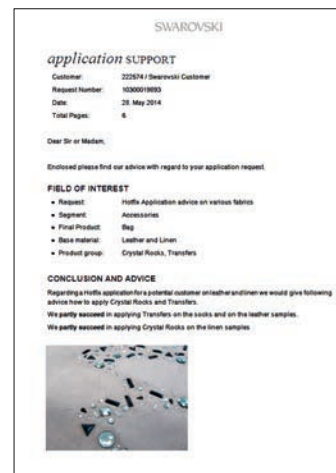
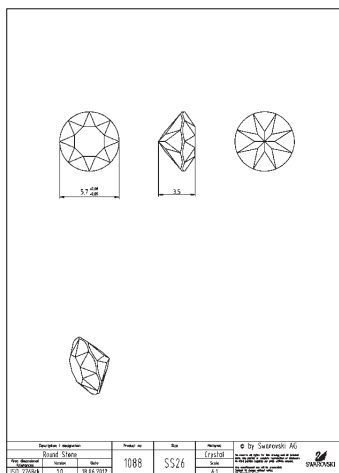
Available worldwide, the technical enquiry service can help you in the following areas:

- Product information
- Technical drawing
- Care instructions
- Information on industry standards
- Individual application tests based on customer samples
- Information on machines, tools, and aids

Compliance service

The worldwide available compliance service can support you in the following areas:

- Certificates
- Information on laws and regulations
- Compliance information of Swarovski crystals
- Compliance statement to customer-specific requirements



For further information, please contact your local Swarovski office.

Technical customer support – field services

Swarovski imparts its crystal application expertise through customized **Crystal Application Workshops, Crystal Application Consultancy, Troubleshooting, and Technical Assessments**. These can take place either on customers' premises or at Swarovski locations. The focus is always on customers' individual needs, the efficient use of Swarovski products, and on the quality of the crystal application.

Our services have been created to take advantage of our comprehensive crystal application expertise in the following areas: mastery of the relevant techniques, technical knowledge of Swarovski products, process-engineering competencies, and our experience of crystal application equipment, together with our product manufacturing knowledge of various industries.



Service results (dependent on the particular individual service package):

PREVENTION OF INCREASED DEVELOPMENT COSTS THROUGH TECHNICAL INPUT IN:

- The correct choice of Swarovski products
- The correct technical design
- The correct application technique
- The correct integration of an application process into the entire process landscape
- Application process set-up

PREVENTION OF COST COMPLAINTS THROUGH TECHNICAL INPUT IN:

- The correct positioning and arrangement of Swarovski products
- Learning how to check the quality of crystal applications
- Suitability of the customer's equipment, tools, and aids

PREVENTION OF INCREASED STAFF DEVELOPMENT COSTS THROUGH:

- Staff training in appropriate application techniques
- Building your technical knowledge base, thereby enabling you to be self-sufficient

Application partner network

As a company with a global sales network and deep understanding of the market, Swarovski has comprehensive knowledge of various application companies and their services from around the world.

Based on this knowledge, Swarovski has developed a global application partner network. These partners offer a wide range of technical and product-related services, as well as tailored production solutions. In order to qualify and to get access to the application partner network, certain criteria with regard to application techniques, know-how as well as product assortment need to be fulfilled by the application partners.

Application partners can assist you with a variety of application techniques, such as gluing, Hotfix application, sewing, embroidery, and mechanical application. In addition, many partners can carry out technically complex solutions, such as Flat Back Leather and the automated, mechanical application of Rivets. The services offered by our partners range from product and design consultancy, to prototyping and carrying out production, and make up a key component of our customer focus.

Should you require a professional partner to assist you in applying items such as Flat Backs onto interior, Transfer Motifs onto T-shirts, Rivets onto belts, or Plastic Trimmings onto jeans, the "Application Partner Platform" or your local Swarovski office can offer guidance.

Application Partner Platform (APP)

The Application Partner Platform enables you to find the right application partner swiftly and easily, wherever in the world production may be taking place. Through a tailored "search function", you can send out a specific, detailed request (e.g. searching for a specific country, an application technique, or products) to select partners around the world.

The platform is made up of two core areas – "Find a Partner" and "Become a Partner":

Find a Partner

Using the search function, this area enables you to locate the best application partner for your application work. You are immediately provided with a list of application partners, which you can download and save. If you use the search function for a specific enquiry regarding an application service, you receive detailed information from the application partners contacted.

Become a Partner

If you are interested in becoming an application partner yourself, the "Become a Partner" section contains key information on the requirements and an application form to complete. Your local Swarovski office will then contact you as soon as possible.

The screenshot shows the 'Find a Partner' search form on the Swarovski Professional website. The form is titled 'Find a Partner' and includes a search bar with the text 'Please fill out the search fields to find the right partner for your request.' Below the search bar, there are several input fields: 'Company', 'City', 'Continent' (with a dropdown menu showing 'please choose'), and 'Country' (with a dropdown menu showing 'please choose'). There is also an 'Info' section on the left. At the bottom, there are checkboxes for 'Products': 'Flat Backs Hotfix', 'Flat Backs for Hotfix', 'Crystal Tattoos', and 'Crystal Trimmings'.

Access to the Application Partner Platform:

Part of the "Application Partner Platform" is located in the restricted area of the business website [SWAROVSKI.COM/PROFESSIONAL](https://www.swarovski.com/professional). Under "Design & Application" → "Application & Manufacturing" you will find access to the Application Partner Platform.

For access to the restricted area of the business website and for further information, please contact your local Swarovski office or register online on the business website.

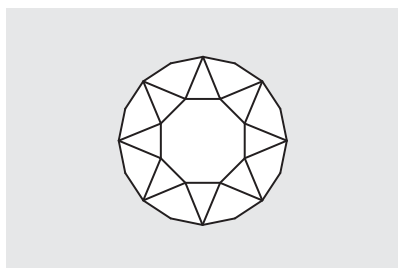
GENERAL PRODUCT INFORMATION

This list offers an overview of Swarovski products that are suitable for the application methods described. Product categories/ descriptions are based on the 2014 Collection.

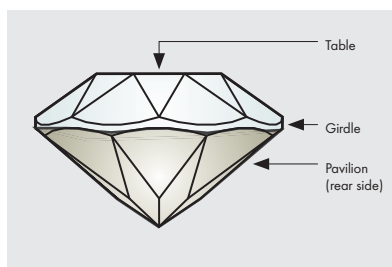
Round Stones	Round Stones are loose crystal elements. Most of them are pointed on the reverse side, making them easy to apply in either metal claw settings or pre-set cavities in die-cast metal alloys. The assortment features a wide variety of different cuts, the most innovative one is the XIRIUS Chaton.
Fancy Stones & Settings	Fancy Stones are offered in numerous shapes ranging from classical gemstone-inspired cuts to progressive trend cuts. They come in a huge assortment of different sizes and colors. Showing either a faceted or flat reverse side, Fancy Stones can be glued into pre-cast cavities or used in metal settings. Their precision-cut facets ensure the highest brilliance and endow design ideas with a unique sparkle.
Beads	Beads offer the highest standard available on the market. The high-quality precision cutting and the clear through-hole achieve high brilliance and clarity. Rounded hole edges reduce the wear on thread and increase the durability of designs. The assortment is divided into classic, romantic, and progressive shape characteristics. They are available in the latest fashion colors, effects, and cuts.
BeCharmed & Pavé	The BeCharmed assortment, from Beads, Crystal Pearls, Pavé, and Rondelles, to Stoppers and Pavé Balls in a brilliant array of colors and effects, offers unlimited combination possibilities. All products of this unique line feature a high-quality stainless steel part with Swarovski branding and a 4.5 mm-diameter hole, which is the standard size for existing charm concepts, making BeCharmed pieces ideal collectibles.
Crystal Pearls	Crystal Pearls are perfect replicas of genuine pearls. They are made of a unique crystal core covered with an innovative pearl coating, which features a flawless, silky smooth, rounded surface. They are available in a variety of shapes, sizes, and colors and are delivered loosely threaded or, if desired, also knotted.
Pendants	Pendants have timeless elegance and are available in a large range of classical and avant-garde cuts and shapes, as well as in many colors and effects. Pendants offer a whole range of design possibilities for different segments thanks to their easy application, with the hole on top requiring only a jump ring/ pinch bail with a chain or cord.
Flat Backs No Hotfix	Flat Backs No Hotfix are loose crystal elements backed with platinum foiling for extra brilliance and protection. These Flat Backs are easy to apply to a variety of carrier materials using standard one- or two-component glues. They are available in a multitude of sizes, colors, shapes, and cuts.
Flat Backs Hotfix	Flat Backs Hotfix are loose crystal elements with a flat reverse side that has been pre-coated with a heat-sensitive glue. These Flat Backs can be easily applied to a large range of textile carrier materials using heat to produce a durable and long-lasting crystal effect. Flat Backs Hotfix are available in a multitude of colors, shapes, and cuts.
Sew-on Articles	Sew-on Articles are loose crystals that can be easily sewn (either by hand, or with a standard domestic or industrial embroidery sewing machine) onto any type of textile or accessory. Sew-on Articles come in two- or three-hole varieties, including round, oval, and triangle holes for use in a wide range of decorative applications for fine embroidery or even jewelry. Lochrosen are crystals with just one hole. Sew-on Articles have rounded edges on the hole entry and exit areas to guarantee thread protection.
Self-adhesive Elements	Self-adhesive Elements such as Crystal-it, Crystal Fabric-it, Crystaltex-it Chaton or Crystal Rocks-it are eye-catching and innovative products that come ready-to-apply. They are pressure-sensitive and self-adhesive. When applied to paper and solid surfaces, they can create elegant, romantic, or sporty designs.
Transfers	Transfers are ideal for Hotfix application on all kinds of textiles. They are available in a large range of motifs and numbers of rows, which are made up of different articles from the Flat Back Hotfix assortment. Featuring designs from the in-house design team, they can comprise XIRIUS and XILION Roses, or Creation Stones, as well as Metallics and Cabochons.
Synthetics Hotfix	These versatile products open up a multitude of creative design possibilities through their numerous application techniques. They combine elegant crystals from Swarovski that can be applied using Hotfix technology with synthetic carrier materials. They are ideal for use in the textile, interior design, jewelry, and accessories segments.
Plastic Trimmings	Plastic Trimmings are plastic carrier materials with integrated crystals. These multi-functional products can either be hand- or machine-sewn or glued onto various surfaces. The range of bandings not only offers a color selection of chatons, but also a variety of casing colors.
Buttons, Fasteners & Zippers	Crystal Buttons can be used in exactly the same way as standard buttons. The assortment of available buttons ranges from those for shirts, blouses, jackets, and coats, to buttons for denim and accessories. They are suitable for hand and mechanical application. Zippers from our assortment are unique because the crystals are integrated into the zipper teeth, allowing them to be used in the same way as standard zippers.

Metal Trimmings	Metal Trimmings are forward-integrated metal products. They can be sewn by hand or machine and mechanically applied onto different fabrics or other materials. Metal Trimmings are bestsellers among the textile, shoe, and accessories segments because their wide range of application possibilities ensures that they can be used in a multitude of different ways.
Crystal Mesh	Crystal Mesh is a flexible metal mesh carrier with integrated loose crystals. The product is available in a wide range of colors and casings, either as a Hotfix version, which can be applied using heat, or as a No Hotfix version that can be hand- or machine-sewn.
Cupchains & Findings	These products are metal chains and findings that can integrate either Round or Fancy Stones and Beads into any creative design. They can be divided into seven sub-categories: Single Stone Settings, Cupchains and Brass Components, Multi Stone Settings, Channels, Metal Buttons, Rondelles, and Linked Findings. Each of these groupings is available in a wide variety of shapes, sizes, colors, and platings.

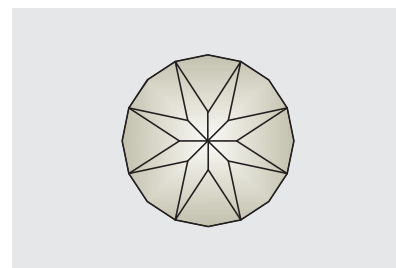
Crystal specifications



Front view



Side view



Rear view (Pavilion)

Foiling

Foiling is the process of mirror coating the reverse side of the crystals.



Silver Foiling (A)

A silver mirror finish for XIRIUS and XILION Hotfix articles only.



Platinum Pro Foiling (F)

A silver mirror finish that is coated with a platinum colored protective layer of highest quality. The Platinum Pro Foiling is not only resistant to environmental damage from chlorine, salt water, and perfume – it can also withstand processes such as soldering and electroplating, giving it unprecedented durability (e.g. art. 4120).



Aluminum Foiling (M)

An aluminum mirror finish is applied using a vacuum coating process (e.g. art. 2855 Flat Back HF).



Protective Layer (P) for Beads and Pendants

Protective layer is a transparent lacquer system that is applied over the effects. This lacquer is designed to protect the effects from scratches, fingerprints, and other damage and also helps to prevent moisture that can lead to corrosion (e.g. from perspiration) penetrating into the effect layer when jewelry is designed to incorporate Crystal Stones that are not set in casings/settings.



Unfoiled (U)

Effects

Vacuum Coating Effects

Vacuum coating processes on the surface of the crystal produce either a special surface or a translucent effect, according to the application methods used.

Please find below a list of all Swarovski effects followed by an explanation of the special vacuum coating processes.


Surface Effects

(Vacuum coating on the surface of the crystal)

	Effect Code	Name
	AB	Aurore Boreale
	ANTP	Antique Pink
	API	Astral Pink
	BLSH	Blue Shade
	BRSH	Bronze Shade
	CAL	Comet Argent Light
	COP	Copper
	DOR	Dorado
	GSHA	Golden Shadow
	HEM	Hematite (only on Jet)
	IRIG	Iridescent Green
	LISH	Lilac Shadow
	LTCH	Light Chrome
	LUMG	Luminous Green
	METSH	Metallic Sunshine
	METBL	Metallic Blue
	MLGLD	Metallic Light Gold
	MOL	Moonlight
	NUT	Nut (only on Jet)
	PARSH	Paradise Shine
	REDM	Red Magma
	ROGL	Rose Gold
	SAT	Satin
	SCGR	Scarabaeus Green designed by JPG
	SSHA	Silver Shade
	TRA	Transmission

Translucent Effects

(Vacuum coating on the reverse side of the crystal, effect shines through the transparent crystal)

	Effect Code	Name
	BBL	Bermuda Blue
	HEL	Heliotrope
	MBL	Meridian Blue
	SINI	Silver Night
	TAB	Tabac
	VL	Vitrail Light
	VM	Vitrail Medium
	VOL	Volcano

Patina Effects

(Partial coating of the correspondingly modified effects)

Effect Code	Name
BLAPA	Black Patina
GOLPA	Gold Patina
ROSPA	Rose Patina
SILPA	Silver Patina
WHIPA	White Patina

Lacquer^{PRO} Effects

A premium opaque varnish which is applied to the reverse side of the crystal instead of foiling, resulting in an opalescent appearance.

Effect Code	Name
L104	Powder Blue
L102	Powder Green
L105	Powder Grey
L103	Powder Rose
L101	Powder Yellow

Variations on Surface Effects

2x



Both sides of the stone are treated with an effect (e.g. art. 5000AB 2).

B



Effects on three sides of a cube shape (e.g. art. 5601 AB B).

V



The effect is used in reverse. A surface effect is used like a translucent effect (e.g. art. 2420 NoHF SSHA V - Silver Shade on the reverse side).

Z



Only a part of the stone is treated with an effect (e.g. art. 4869 HEL Z).

FC (Full Coated)

Improved technology allows for the perfectly homogeneous, all-round application of high-intensity metallic effects in the Bead assortment (art. 5000).

CAL'V'SI & CAL'VZ'SI

The effect CAL (Comet Argent Light) is also used as a mirror coating on the reverse side of the crystal instead of standard foilings (A, F, ...) in special cases (e.g. art. 2035).

/G

Article with partly (PF) or fully frosted (FF) surface (e.g. art. 2611/G)

PA (Patina)

Innovative technology allows for the partly coated application of adapted effects. Its historical edge and "used" look give it a certain timelessness, without losing its crystalline appearance (e.g. art. 2034).

Special Surface Effects

Swarovski has been able to achieve various special surface effects by using special chemical and mechanical processes on the surface of the crystals.



MAT



COS

<i>Effect Code</i>	<i>Name</i>
MAT	Matt Finish
COS	Cosmojet

The Matt Finish effect is achieved by performing a chemical matting process on the entire surface of the crystal. Small variations in the size of the articles may occur as a result of this chemical process.

Using a special process, the outer facets of Flat Back Roses can be blackened. The Cosmojet effect is only possible for the color Crystal (001).

Colors



Ceramics



Effects

Crystal Lacquer^{PRO} Effects

Crystal Patina



Classic Colors: This color range offers a wide choice of traditional Swarovski crystal colors.

Exclusive Colors: This color range is offered exclusively by Swarovski.

The listed colors and effects are based on the Color Chart for Round Stones (2016).

The standard assortment of colors and effects may vary per product group. Slight changes in shades are unavoidable. Colors may vary according to cut and shape.

The plating resistance of effects is tested according to Swarovski's plating guidelines (SWAROVSKI.COM/PROFESSIONAL). Customers are advised to carry out their own tests if customers' plating parameters diverge from Swarovski plating guidelines. Details for parameter settings can be found on page 19.

* Crystals are not resistant to plating and similar processing.

** Crystals are resistant to plating only if they are foiled.

*** The color Indian Siam is available only for a specific size range. Please refer to the current Collection.

**** Designed by Jean Paul Gaultier

Testing the plating-resistance

For testing the plating-resistance of effects, the following parameter settings have to be considered:



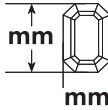
Note: Swarovski cannot warrant the resistance of effects when the parameters as set out above are changed. Swarovski's declaration of resistance does not discharge customer from carrying out its own tests of the suitability for the intended finishing of products. The use and processing of these techniques and products are solely the user's responsibility.

Sizes

Various measurement abbreviations are used to classify the jewelry stones.



PP, SS
 Pearl Plate (PP), Sieve Size or Stone Size (SS)
 for round crystals.



mm
 Metric figures in millimeters for crystal components and
 geometric forms.

•	PP 0 0.70-0.80 mm	•	PP 21 (SS 10) 2.70-2.80 mm	•	SS 26 5.61-5.78 mm	•	SS 45 9.85-10.19 mm
•	PP 1 (SS 000) 0.80-0.90 mm	•	PP 22 (SS 10) 2.80-2.90 mm	•	SS 27 5.78-5.96 mm	•	SS 46 10.19-10.54 mm
•	PP 2 (SS 00) 0.90-1.00 mm	•	PP 23 (SS 11) 2.90-3.00 mm	•	SS 28 5.96-6.14 mm	•	SS 47 10.54-10.91 mm
•	PP 3 (SS 0) 1.00-1.10 mm	•	PP 24 (SS 12) 3.00-3.20 mm	•	SS 29 6.14-6.32 mm	•	SS 48 10.91-11.30 mm
•	PP 4 (SS 1) 1.10-1.20 mm	•	PP 25 (SS 13) 3.20-3.30 mm	•	SS 30 6.32-6.50 mm	•	SS 49 11.30-11.72 mm
•	PP 5 (SS 2) 1.20-1.30 mm	•	PP 26 (SS 13) 3.30-3.40 mm	•	SS 31 6.50-6.68 mm	•	SS 50 11.72-11.97 mm
•	PP 6 (SS 2) 1.30-1.35 mm	•	PP 27 (SS 14) 3.40-3.50 mm	•	SS 32 6.68-6.87 mm	•	SS 55 12.97-13.22 mm
•	PP 7 (SS 3) 1.35-1.40 mm	•	PP 28 (SS 14) 3.50-3.60 mm	•	SS 33 6.87-7.07 mm	•	SS 60 14.22-14.47 mm
•	PP 8 (SS 3) 1.40-1.50 mm	•	PP 29 (SS 15) 3.60-3.70 mm	•	SS 34 7.07-7.27 mm	•	SS 65 15.47-15.72 mm
•	PP 9 (SS 4) 1.50-1.60 mm	•	PP 30 (SS 15) 3.70-3.80 mm	•	SS 35 7.27-7.48 mm	•	SS 70 16.72-16.97 mm
•	PP 10 (SS 4) 1.60-1.70 mm	•	PP 31 (SS 16) 3.80-4.00 mm	•	SS 36 7.48-7.70 mm	•	SS 75 17.97-18.22 mm
•	PP 11 (SS 5) 1.70-1.80 mm	•	PP 32 (SS 17) 4.00-4.10 mm	•	SS 37 7.70-7.93 mm		
•	PP 12 (SS 5) 1.80-1.90 mm	•	PP 33 (SS 17) 4.10-4.20 mm	•	SS 38 7.93-8.16 mm		
•	PP 13 (SS 6) 1.90-2.00 mm	•	SS 18 4.20-4.40 mm	•	SS 39 8.16-8.41 mm		
•	PP 14 (SS 6) 2.00-2.10 mm	•	SS 19 4.40-4.60 mm	•	SS 40 8.41-8.67 mm		
•	PP 15 (SS 7) 2.10-2.20 mm	•	SS 20 4.60-4.80 mm	•	SS 41 8.67-8.95 mm		
•	PP 16 (SS 7) 2.20-2.30 mm	•	SS 21 4.80-4.90 mm	•	SS 42 8.95-9.23 mm		
•	PP 17 (SS 8) 2.30-2.40 mm	•	SS 22 4.90-5.10 mm	•	SS 43 9.23-9.53 mm		
•	PP 18 (SS 8) 2.40-2.50 mm	•	SS 23 5.10-5.27 mm	•	SS 44 9.53-9.85 mm		
•	PP 19 (SS 9) 2.50-2.60 mm	•	SS 24 5.27-5.44 mm				
•	PP 20 (SS 9) 2.60-2.70 mm	•	SS 25 5.44-5.61 mm				

SWAROVSKI PRODUCTS AND SUITABLE APPLICATION TECHNIQUES

		Soldering	Plating	Setting	Gluing	Hoflix Application	Sewing	Embroidery	Hand Application	Mechanical Application	Ceralun
Round Stones				✓	✓						✓
Fancy Stones & Settings	Fancy Stones			✓	✓						✓
	Settings	✓	✓	✓			✓ ¹		✓		
Beads							✓ ¹		✓		
BeCharmed & Pavé							✓ ¹		✓		
Crystal Pearls							✓ ¹		✓		
Pendants							✓ ¹		✓		
Flat Backs No Hoflix				✓	✓						✓
Flat Backs Hoflix	XILION Rose & XIRIUS Rose					✓					
	Framed Flat Backs					✓					
	Creation Stones					✓					
	Creation Stones Plus					✓					
	Cabochon Round					✓					
Sew-on Articles							✓	✓ ²	✓		
Self-adhesive Elements					✓						
Transfers	XILION Transfers & XIRIUS Transfers					✓					
	Creation Transfers					✓					
	Creation Transfers Plus					✓					
	Pearl Transfers					✓					
	Diamond Transfers					✓					
	Metallic Transfers					✓					
	Mezzo Transfers					✓					
Synthetics Hoflix	Crystal Fabric				✓	✓					
	Crystal Rocks & Crystal Fine Rocks				✓	✓					
	Crystaltex				✓	✓	✓ ³				
Plastic Trimmings	Basic Bandings				✓		✓	✓ ⁴			
	Fishnet Bandings						✓				
	Decorative Bandings						✓				
	Plastic Components						✓ ¹		✓		
Buttons, Fasteners & Zippers	Crystal Buttons						✓		✓		
	Buttons with Plastic Shank						✓		✓		
	Snap Fasteners & Decorative Buttons									✓	
	Inset Snap Fasteners & XIRIUS Flat Back Snap Fasteners									✓	
	Jeans Buttons									✓	
	Buttons with Metal Shank						✓		✓		
	Zippers						✓				
Metal Trimmings	Chaton & Flat Back Bandings / Motifs				✓		✓				
	Spike Bandings				✓		✓ ¹				
	Rivets (Crystal Pearl, Square, Chessboard, Star, Spike)									✓	
	Roses & Chaton Montées						✓ ¹		✓		
	Rose Pins, Chessboard Pins & Rhombus Pins									✓	
	Crystal Studs									✓	
Crystal Mesh					✓	✓	✓ ⁵				
Cupchains & Findings		✓	✓				✓		✓		

1 These products are not suitable for sewing with a sewing machine 2 Art. 3129 3 Not suitable for Crystaltex Chaton Bandings 4 Art. 50 002, 50 003, and 50 004 (single-row)
5 Crystal Fine Mesh is not suitable for sewing with a sewing machine

CERALUN

Ceralun is a high-performance, two-component ceramic epoxy composite especially developed for the application of Swarovski products.

PRODUCT OVERVIEW

The following products are suitable for application with Ceralun:

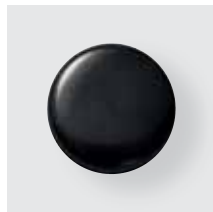
	CERALUN
Round Stones	✓
Fancy Stones	✓
Flat Backs No Hotfix	✓

Ceralun is a versatile and strong two-component, high-performance ceramic epoxy composite. This clay has been specifically developed and tailored to embed foiled and unfoiled crystals. It is an absolutely essential material for innovative design. Ceralun has a high level of hardness, rigidity, and shock absorbance. It is resistant to sweat, humidity, or climatic changes, and shows no aging.

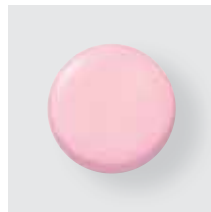
Available Basic Colors



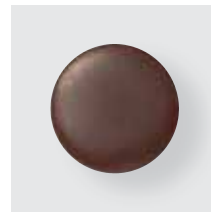
White SP



Black



Rose SP



Walnut



Dark Sapphire



Malachite

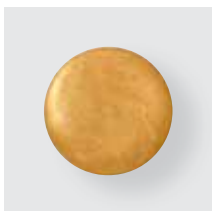


Red



Yellow

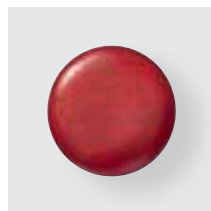
Available Shining Colors



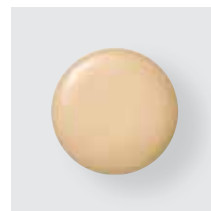
Gold



Silver



Shining Red



Pearl Silk



Anthrazite



Shining Green



Shining Lilac

MACHINES, TOOLS, AND AIDS

The following machines, tools, and aids can be used for the various processes involved in the application of Swarovski products with Ceralun:



Test Pen (art. 9030/000)



Isopropyl alcohol/Acetone



Blow torch



Corona



Plasma cleaner



Precision balance



Gloves



Protective eyewear



Ceralun (A + B)
Two-component ceramic epoxy composite
(5 x 20 g)



Ceralun (A + B)
Two-component ceramic epoxy composite
(100 g)



Ceralun (A + B)
Two-component ceramic epoxy composite
(10 x 100 g)



Ceralun (A + B)
Two-component ceramic epoxy composite
(1 kg)



Release Agent
Contains high molecular liquid wax (100 ml)



Vacuum pick-up system

Courtesy of I&J Fisnar Inc.



Chaton Sieve for Chatons size PP 0 - PP 1
(art. 9030/003)



Chaton Sieve for Chatons size PP 2 - PP 20
(art. 9030/001)



Chaton Sieve for Chatons size PP 21 - SS 34
(art. 9030/002)



Tweezers



Wax stick



Drying oven



Freezer

Fotografia: istockphoto.com

SUPPLIERS

This list provides an overview of selected suppliers worldwide.

MACHINES / TOOLS / AIDS	SUPPLIER	CONTACT
Test Pen	Swarovski: art. 9030/000	www.swarovski.com/professional
Ceralun Basic Colors	Swarovski: art. 9020, 5 x 20 g, America, Asia, Europe art. 9020, 100 g, America, Asia, Europe art. 9020, 10 x 100 g, America, Asia, Europe art. 9020, 1 kg, America, Asia, Europe Black (A+B), Dark Sapphire (A+B), Malachite (A+B), Red (A+B), Rose (A+B), Walnut (A+B), White (A+B), Yellow (A+B)	www.swarovski.com/professional
Ceralun Shining Colors	Swarovski: art. 9020, 5 x 20 g, America, Asia, Europe art. 9020, 100 g, America, Asia, Europe art. 9020, 10 x 100 g, America, Asia, Europe art. 9020, 1 kg, America, Asia, Europe Anthracite (A+B), Gold (A+B), Pearl Silk (A+B), Shining Green (A+B), Shining Lilac (A+B), Shining Red (A+B), Silver (A+B)	www.swarovski.com/professional
Ceralun Release Agent (100 ml)	Swarovski: art. 9020, America, Asia, Europe	www.swarovski.com/professional
Vacuum pick-up system	I & J Fisnar, Inc. Epoxy & Equipment Technology PTE., Ltd. Hottemp (M) Sdn. Bhd. PT. SKT International	www.fisnar.com www.eetdispensing.com www.hottemp.com.my www.sktisolution.com
Chaton Sieve	Swarovski: For Chaton size PP 0 – PP 1: art. 9030/003 For Chatons size PP 2 – PP 20: art. 9030/001 For Chatons size PP 21 – SS 34: art. 9030/002	www.swarovski.com/professional
Pick-up stick	Crystal Ninja	www.crystalkatana.com
Drying oven	Heraeus Holding GmbH VWR International, LLC	www.heraeus.com www.vwr.com

APPLICATION

When working with Ceralun, optimal results are obtained by coordinating the entire application process. Following the application steps in the right order is very important. Experience has shown that the most common reasons for crystals becoming detached are inappropriate areas of application, the wrong mixing ratio of the two components, or not mixing them together long enough until a homogenous appearance is achieved.

Main advantages of Ceralun

- Specifically developed and tailored to embed foiled and unfoiled Swarovski crystals.
- High level of hardness, rigidity, and shock absorbance.
- Resistant to perspiration, humidity, or climatic changes and shows no aging.
- Allows new design possibilities.
- Perfect material to generate a large variety of surfaces and structures.
- Applicable on 3D-shaped surfaces.
- Alternative solution to gluing.

Ceralun two-component ceramic epoxy composite

Ceralun was especially developed for the application of both foiled and unfoiled Swarovski crystals, exclusively distributed by Swarovski for professional use within the jewelry segment and other industries such as accessories, interiors, and electronics.

Physical data

Mixing ratio (A : B)	1:1 (by weight)
Pot life at room temperature (23 °C/73.4 °F)	max. 3 h
Total hardening time at room temperature (23 °C/73.4 °F)	72 h
Time needed to harden in an oven at 40 °C/104 °F	12 h
Time needed to harden in an oven at 80 °C/176 °F	2 h
Time required before handling strength is reached at room temperature (23 °C/73.4 °F)	12 h
Humidity during curing	30 - 70%
Density	2.5 g/cm ³
Hardness (according to DIN 53505)	D82

Storage conditions

Storage time at room temperature (23 °C/73.4 °F, 55% rel. hum.)	12 months
Lowest storage temperature	2 °C/35.6 °F

Ceralun has optimal adhesive characteristics for applications on metal, glass, crystal, gluable plastic surfaces, rubber, wood, cork, and porcelain, unless the materials do not have the right surface tension.

Checking the surface tension

The surface tension is an indicator for the wetting properties of the surface the Ceralun should be applied to. A surface tension of at least 38 mN/m is recommended for working with Ceralun. It should also be randomly tested during production. It is best to use the Test Pen (art. 9030/000) to measure the surface tension.



1 Mark the surface.



2 If the ink remains visible for 2 seconds, the surface is suitable for working with Ceralun.



3 If the ink disappears or forms bubbles, the surface is not suitable for applying Ceralun. In this case, the pre-treatment cleaning methods should be checked.

Note: On porous or absorbent materials, the surface tension cannot be checked with the Test Pen. If the Test Pen is used on highly polluted surfaces (e.g. grease, oil) or on material like wood, the Test Pen might be polluted as well and cannot be used anymore.

Pre-treatment

If the surface tension is below 38 mN/m, the following pre-treatment cleaning methods, applied in the correct order, can be effective in reaching the right level.

TYPES OF CLEANING	PRE-TREATMENT CLEANING METHODS
<p>1 Mechanical cleaning</p> <p>This involves sanding, blasting, or brushing but is not usually necessary for jewelry.</p>	<ul style="list-style-type: none"> ▪ Removal of dirt, residues of varnish, rust and/or scale ▪ Roughening the surface
<p>2 Washing and degreasing</p> <p>Here it is important to ascertain that the tensides contain no silicone, as this would impair adhesion. When using solvents it is advisable to test the durability of the surface to be cleaned beforehand to avoid any damage. Solvents containing substances with a high boiling point should not be used due to the high risk of residue. If using cleaning agents, wait a few minutes to allow them to evaporate.</p>	<ul style="list-style-type: none"> ▪ Cleaning with tenside solutions, rinsing with de-ionized water ▪ Cleaning with isopropyl alcohol/ethanol ▪ Cleaning with acetone (MEK/ethyl acetate) ▪ Cleaning with a cleaning solvent: should not contain high boiling point substances (risk of residue)
<p>3 Physical cleaning and activation</p> <p>These cleaning methods can be applied if mechanical cleaning or washing and degreasing are either not possible or have not resulted in a surface tension of >38 mN/m. Therefore the pre-treatment cleaning method used should be done on a case-by-case basis.</p>	<ul style="list-style-type: none"> ▪ Flame treatment with a blow torch The surface to be treated is exposed to the flame of a torch very briefly. When using special gas mixtures, surface silication can also be carried out, so as to apply a more adhesive coating. ▪ Corona treatment An electric corona discharge is briefly applied to the surface. ▪ Plasma treatment Plasma treatment offers precise cleaning and activates the surface via an ionized gas.
<p>4 Chemical cleaning and primers</p> <p>Applying a primer improves adhesion and helps to prevent corrosion.</p>	<ul style="list-style-type: none"> ▪ Applying small amounts of solvent and activating the surface. ▪ Applying a primer.

Please pay high attention to not deviate from the recommended mixing ratio of 1:1 of the components (resin and hardener) and to mix the two components until a homogenous appearance is achieved.

Mixing Ceralun two-component ceramic epoxy composite



1 Cut off resin and hardener with a knife.



2 Weigh the two components. The mixing ratio for Ceralun is 1 : 1 by weight.



2 Mix resin and hardener until a homogenous appearance is achieved.

Proper setting of crystals

After mixing the two components together, the crystals can be set. To prepare Chatons for the positioning process, a **Chaton Sieve** can be helpful. Take the black sieve (for size PP 0 – PP 1, art. 9030/003), the gray sieve (for size PP 2 – PP 20, art. 9030/001) or the blue sieve (for size PP 21 – SS 34, art. 9030/002) according to the Chatons' size. Place some Chatons onto the sieve. By slightly shaking the tool and wiping over the crystals with glove-covered fingers, the majority of Chatons automatically get turned into the suitable position for gluing (table pointing upwards).

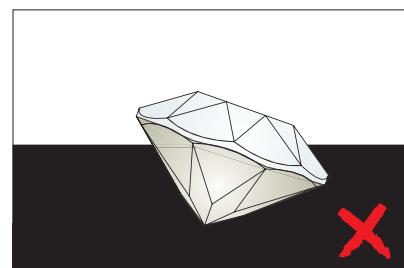
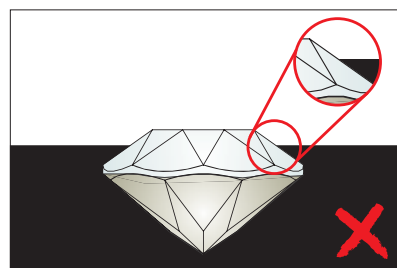
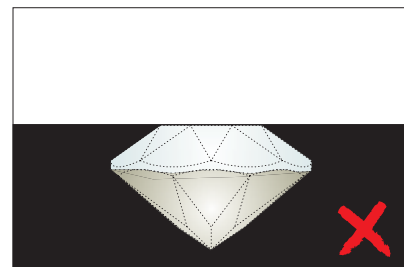
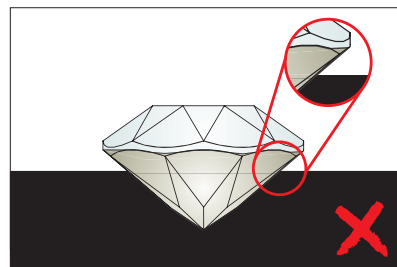
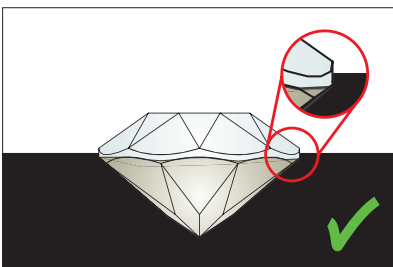


Using a Chaton Sieve can facilitate the setting of Chatons

As a next step the Chatons can easily be picked up from the sieve using a tool like the wax stick, tweezers, or a vacuum pick-up system. The use of a silicone wax stick is not recommended as this can impair the adhesion and the brilliance of the crystals. Apply the Chatons to the desired position and press down gently.

We recommend a maximum working time of three hours at a temperature of 23 °C/73.4 °F to set the Swarovski products. It is not possible to set crystals at room temperature after a period of three hours because the required level of adhesion can no longer be achieved.

Please take care that the pavilion of the crystal is surrounded by Ceralun right up to the level of the stone's girdle. It is not necessary to leave any particular space between the crystals when setting them.



Different processing methods

Ceralun is the perfect material for generating a variety of surfaces and structures. Possible ways of processing are the forming method and the stamping technique.

FREE FORMING



1 Place and press the clay onto the relevant area. Be careful not to trap air between Ceralun and the base material.



2 Mold the surface into the required shape and smooth the surface with the recommended Release Agent.



3 Pick up the crystal with a vacuum pick-up system – or with a pair of tweezers or a wax stick. Carefully place the crystal and press it down gently.

GENERATING SHINY SURFACES WITH THE FREE FORMING METHOD

When a piece of jewelry is created where parts of Ceralun are visible, a smooth and shiny clay surface might be desired. In order to create a shiny surface, gently wipe and polish the clay with your silicone glove-covered finger using the recommended Release Agent or some water drops. The Ceralun surface can be polished up to 2 hours after the crystals have been set.

STAMPING TECHNIQUE

The stamping technique is suitable to produce structured surfaces.



1 Pre-treat the pattern cautiously with the recommended Release Agent.



2 Gently press the pattern onto the surface.



3 After removing the pattern from the clay, the crystals can be set.

GENERATING SHINY SURFACES WITH THE STAMPING TECHNIQUE

If a larger surface of shiny Ceralun is needed, the following aids are required: transfer foil, a pasta machine or rolling pin, and a freezer. Knead the clay and put it between two layers of foil. Smoothen it with the help of a pasta machine or with a rolling pin. Using the pasta machine is the recommended option, as a consistent height of the Ceralun is achieved easier than with the rolling pin. When the clay inside the foil is as flat as desired, put it into the freezer for approx. 15 minutes. The cold reduces the bonding between Ceralun and foil, so that the foil can easily be detached from the flat and shiny clay.

3D SILICONE MOLDS

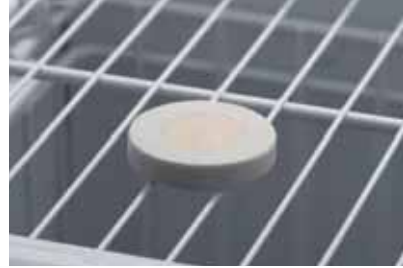
The work and cost saving method of using 3D silicone molds is recommended for larger production units. A 3D silicone mold is produced based on a master model. This can be re-used for several times.



1 First press the Ceralun into the 3D silicone mold to form the required shape.



2 Any overlapping material can be trimmed off with a knife.



3 In order to make it easier for you to remove the Ceralun from the mold, it should first be stored in the freezer. The length of time the filled mold should remain in the freezer depends on the thickness and amount of the Ceralun used.



4 After taking the mold out of the freezer, the Ceralun can be removed from it and gently pressed into place on the chosen object.



5 Please be sure to remove any condensed water.



6 Once the Ceralun reaches a lukewarm temperature, you can proceed with setting the crystals.

CHECKING SURFACE TENSION
AND PRE-TREATMENT

DOSAGE, MIXTURE
AND SETTING

PROCESSING
METHODS

CURING

The hardening time and final adhesion strength of Ceralun are dependent on the temperature. The total hardening time at room temperature of 23 °C (73.4 °F) takes 72 hours. This can be accelerated using heat of max. 80 °C (176 °F).

USEFUL INFORMATION

Extension of pot life



1 Store already mixed Ceralun in a freezer to extend the pot life. Ceralun can be stored in a freezer for up to 24 hours at a temperature of around - 20 °C (- 4 °F).



2 This makes it possible to interrupt the setting process and continue again later without losing the adhesion force.



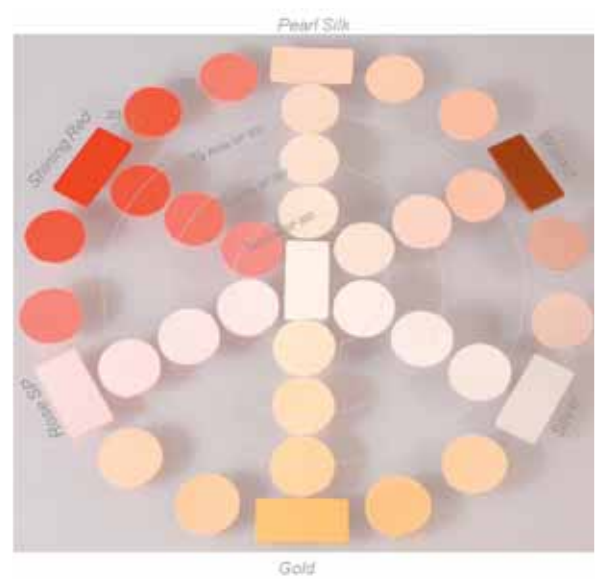
3 It is necessary to gently remove any condensed water that occurs during the defrosting process.

MIXING DIFFERENT COLORS OF CERALUN

You can mix different colors together as you wish. Please consider that you have to separately mix the epoxy resin and hardener of each color before you mix them together. Below you find some examples of mixed colors and the corresponding mixing ratio.



Based on Black SP



Based on White SP 300

QUICK ASSISTANCE

PROBLEM	CAUSE
Ceralun does not cure.	1, 2, 6
Ceralun is not bonding with the base material.	1, 2, 3, 6
Crystals fall off.	1, 2, 4, 5, 6
Ceralun cannot be removed from the silicone mold.	7, 8
Using the stamping technique, Ceralun cannot be removed from the surface pattern.	7
Ceralun appears foggy/cloudy after curing.	5, 6, 7

CAUSE	RECOMMENDATION
1 An error has occurred during the calculation of the right mixing ratio between the two components (resin/hardener).	Do not deviate from the recommended mixing ratio of the components (resin/hardener), 1 : 1.
2 Resin and hardener have not been mixed until a homogenous appearance was achieved.	Be sure to use the exact recommended dosage and to carefully remove any excess Ceralun, e.g. using acetone or isopropyl alcohol.
3 The base material is not suitable for using Ceralun or it has been incorrectly pre-cleaned.	Check the surface tension. If the surface tension is below 38 mN/m, carry out pre-treatment cleaning methods.
4 The specified processing time was exceeded and as a result Ceralun has already hardened.	Reduce the processing time to a maximum of two hours at a temperature of 23 °C (73.4 °F)
5 If stored in the freezer, condensed water can occur during the defrosting process.	Take care to gently remove any condensed water that occurs during the defrosting process.
6 Ceralun has been stored for too much time in the freezer.	Make sure not to exceed the recommended time of 24 hours when Ceralun is stored in a freezer at a temperature of around - 20 °C (- 4 °F).
7 No or not enough Release Agent has been used.	The Release Agent is a useful aid to be able to remove Ceralun from any surface. Carefully dose the used amount of Release Agent.
8 Ceralun has not been stored in a freezer or has been stored for too little time.	Storing Ceralun in a freezer makes it easier for you to remove it from the mold.

CARE INSTRUCTIONS

To ensure the highest quality and longest-lasting applications of Swarovski products, proper care is essential. The Swarovski Hotfix adhesive is characterized by its wash resistance and easy-care properties.

TEXTILE CARE INSTRUCTIONS

								
General Recommendations		Turn inside out, choose a gentle wash cycle and use mild laundry detergent.			Turn inside out and use mild laundry detergent.	Do not wash!	Chlorine bleach may be used.	Do not use chlorine bleach!
		To protect the crystals as much as possible, the use of a soft wash bag is recommended.						
Round Stones		✓						✓
Fancy Stones		✓						✓
Beads	Beads	✓						✓
	Crystal Mesh Balls				✓			✓
BeCharmed & Pavé			✓					✓
Crystal Pearls					✓			✓
Pendants						✓		✓
Flat Backs No Hotfix ¹		✓						✓
Flat Backs Hotfix	XILION Rose & XIRIUS Rose ¹	✓						✓
	Framed Flat Backs	✓						✓
	Creation Stones	✓						✓
	Creation Stones Plus ²				✓			✓
	Cabochons				✓			✓
Sew-on Articles		✓						✓
Self-adhesive Elements						✓		✓
Transfers	XILION Transfers & XIRIUS Transfers	✓						✓
	Creation, Diamond	✓						✓
	Metallic & Mezzo Transfers		✓					✓
	Creation Transfers Plus ²				✓			✓
	Pearl Transfers				✓			✓
Synthetics Hotfix	Crystal Fabric		✓					✓
	Crystal Rocks & Crystal Fine Rocks		✓					✓
	Graphic Fabric & Graphic (Fine) Rocks				✓			✓
	Crystal Medley		✓					✓
	Crystalltex ³		✓					✓
Plastic Trimmings	Basic Bandings	✓						✓
	Fishnet Bandings	✓						✓
	Decorative Bandings		✓					✓
	Plastic Components		✓					✓
Buttons, Fasteners & Zippers	Crystal Buttons	✓						✓
	Buttons with Plastic Shank		✓					✓
	Snap Fasteners & Decorative Buttons		✓					✓
	Jeans Buttons		✓					✓
	Buttons with Metal Shank		✓					✓
	Zippers			✓				✓
Metal Trimmings	Chaton & Flat Back Bandings & Spike Bandings				✓			✓
	Rivets, Square Rivets, Chessboard Rivets & Star Rivets		✓					✓
	Crystal Pearl Rivets				✓			✓
	Spike Rivets				✓			✓
	Roses & Chaton Montées		✓					✓
	Rose Pins, Chessboard Pins & Rhombus Pins		✓					✓
	Crystal Studs				✓			✓
Crystal Mesh					✓			✓
Cupchains & Findings						✓		✓

1 XIRIUS size SS 40 and SS 48: only wash with a hand wash program.

2 Creation Stones Plus have a stone size of 8 - 10 mm.

3 It is recommended to wash Crystalltex Cabochon with a hand wash program.

TEXTILE CARE INSTRUCTIONS

					
	Turn inside out and dry at reduced temperature.	Do not tumble dry!	Iron inside out using a silk/polyester/viscose setting. Ironing the textile inside out and using a pressing cloth is recommended.	Iron inside out using a wool setting.	Do not iron! Do not iron directly over the crystals.
Round Stones		✓			✓
Fancy Stones		✓			✓
Beads	Beads	✓			✓
	Crystal Mesh Balls		✓		✓
BeCharmed & Pavé		✓			✓
Crystal Pearls		✓			✓
Pendants		✓			✓
Flat Backs No Hotfix ¹		✓			✓
Flat Backs Hotfix	XILION Rose & XIRIUS Rose ¹	✓		✓	
	Framed Flat Backs			✓	
	Creation Stones	✓		✓	
	Creation Stones Plus ²		✓		✓
	Cabochons	✓		✓	
Sew-on Articles		✓			✓
Self-adhesive Elements		✓			✓
Transfers	XILION Transfers & XIRIUS Transfers	✓		✓	
	Creation, Diamond	✓		✓	
	Metallic & Mezzo Transfers		✓	✓	
	Creation Transfers Plus ²		✓		✓
	Pearl Transfers	✓		✓	
Synthetics Hotfix	Crystal Fabric		✓	✓	
	Crystal Rocks & Crystal Fine Rocks		✓	✓	
	Graphic Fabric & Graphic (Fine) Rocks		✓	✓	
	Crystal Medley		✓	✓	
	Crystaltex ³		✓	✓	
Plastic Trimmings	Basic Bandings	✓			✓
	Fishnet Bandings		✓		✓
	Decorative Bandings		✓		✓
	Plastic Components		✓		✓
Buttons, Fasteners & Zippers	Crystal Buttons		✓		✓
	Buttons with Plastic Shank		✓		✓
	Snap Fasteners & Decorative Buttons		✓		✓
	Jeans Buttons		✓		✓
	Buttons with Metal Shank		✓		✓
Zippers		✓			✓
Metal Trimmings	Chaton & Flat Back Bandings & Spike Bandings		✓		✓
	Rivets, Square Rivets, Chessboard Rivets & Star Rivets		✓		✓
	Crystal Pearl Rivets		✓		✓
	Spike Rivets		✓		✓
	Roses & Chaton Montées		✓		✓
	Rose Pins, Chessboard Pins & Rhombus Pins		✓		✓
Crystal Studs					✓
Crystal Mesh		✓			✓
Cupchains & Findings		✓			✓

TEXTILE CARE INSTRUCTIONS

					
		The textile can be gently dry-cleaned using perchlorethylene. Turn inside out.	The textile can be gently dry-cleaned using hydrocarbon. Turn inside out.	The textile will withstand gentle professional wet cleaning. Turn inside out.	The textile may not be dry-cleaned.
		To protect the crystals as much as possible, the use of a soft wash bag is recommended.			
Round Stones			✓	✓	
Fancy Stones			✓	✓	
Beads	Beads	✓	✓	✓	
	Crystal Mesh Balls		✓	✓	
BeCharmed & Pavé			✓	✓	
Crystal Pearls			✓	✓	
Pendants					✓
Flat Backs No Hotfix ¹			✓	✓	
Flat Backs Hotfix	XILION Rose & XIRIUS Rose ¹	✓	✓	✓	
	Framed Flat Backs	✓	✓	✓	
	Creation Stones	✓	✓	✓	
	Creation Stones Plus ²	✓	✓	✓	
	Cabochons	✓	✓	✓	
Sew-on Articles		✓	✓	✓	
Self-adhesive Elements					✓
Transfers	XILION Transfers & XIRIUS Transfers	✓	✓	✓	
	Creation, Diamond	✓	✓	✓	
	Metallic & Mezzo Transfers		✓	✓	
	Creation Transfers Plus ²	✓	✓	✓	
	Pearl Transfers	✓	✓	✓	
Synthetics Hotfix	Crystal Fabric		✓	✓	
	Crystal Rocks & Crystal Fine Rocks		✓	✓	
	Graphic Fabric & Graphic (Fine) Rocks		✓	✓	
	Crystal Medley		✓	✓	
	Crystaltex ³		✓	✓	
Plastic Trimmings	Basic Bandings	✓	✓	✓	
	Fishnet Bandings	✓	✓	✓	
	Decorative Bandings	✓	✓	✓	
	Plastic Components	✓	✓	✓	
Buttons, Fasteners & Zippers	Crystal Buttons	✓	✓	✓	
	Buttons with Plastic Shank	✓	✓	✓	
	Snap Fasteners & Decorative Buttons	✓	✓	✓	
	Jeans Buttons		✓	✓	
	Buttons with Metal Shank		✓	✓	
	Zippers		✓	✓	
Metal Trimmings	Chaton & Flat Back Bandings & Spike Bandings		✓	✓	
	Rivets, Square Rivets, Chessboard Rivets & Star Rivets	✓	✓	✓	
	Crystal Pearl Rivets		✓	✓	
	Spike Rivets	✓	✓	✓	
	Roses & Chaton Montées	✓	✓	✓	
	Rose Pins, Chessboard Pins & Rhombus Pins	✓	✓	✓	
	Crystal Studs		✓	✓	
Crystal Mesh			✓	✓	
Cupchains & Findings					✓

GENERAL CARE INSTRUCTIONS

A light layer of dust is most easily removed with a clean, dry and antistatic cloth. To avoid unsightly fingerprints on the crystal, wear white cotton gloves during the cleaning process. For heavier dirt, lukewarm water with a little dishwashing detergent will suffice. Ideally you should use a damp and clean microfiber or thin, lint-free cotton cloth. Gently wipe each individual crystal and dry with a clean cloth. Again, wearing white cotton gloves is recommended.

When cleaning with moisture, make sure to use cleaning agents that do not damage the surrounding material. By correctly cleaning your Swarovski crystals, you will restore their full reflectivity.



Cloth

LAWS, REGULATIONS, NORMS & STANDARDS

The composition of loose and forward-integrated crystals in the Advanced Crystal standard is compliant with regulatory industry norms and laws regarding the restriction or prohibition of certain

substances for finished products in the most relevant segments of our customers' business.

WARNING NOTICES

General Warning



Loose crystals may present a small parts hazard to young children, particularly children under three years old. Depending on the size of the crystal and any attached material (such as glue, fabric, etc.), children may choke on, inhale, swallow, or insert the crystal into their noses. Magnetic products with crystal applications pose a particular risk of serious intestinal injury if ingested. The application techniques as stated in the Application Manual do not guarantee that crystals will not come loose. For each application, the manufacturer must determine whether the product meets the relevant requirements related to small parts hazards and assess any risk it may pose to small children. Failure to follow Swarovski's care instructions may result in damage to the crystal, which could pose a risk of laceration or other harm.

Warning for Crystal Tattoos

Crystal Tattoos may be applied on healthy skin only. Do not adhere to eyes or on mucous membranes. Crystal Tattoos are not recommended for young children. Loose crystals may present a small parts hazard to young children, particularly children under three years old. If a crystal comes loose, depending on the size of the crystal, children may choke on, inhale, swallow, or insert the crystal into their noses.

Warning for Magnetic Products

Loose crystals may present a small parts hazard to young children, particularly children under three years old. Magnetic products with crystal applications pose a particular risk of serious intestinal injuries if ingested. For each application of magnetic crystal products, the manufacturer must determine whether the product meets relevant requirements related to small parts hazards and assess any risk it may pose to small children.

Warning for Tableware

The application of loose crystals to tableware presents a potential risk of aspiration, choking, swallowing, or tooth damage should crystals become loose. To reduce this risk, crystals should never be applied to any surface of tableware likely to come in contact with food or the mouth, and crystals should never be placed on any tableware intended for use by children. Tableware with

crystals intended for decorative use only should be marked as such. To avoid dishwasher damage, tableware decorated with crystals should be washed by hand. The application techniques or suggestions in this manual do not guarantee that crystals will not come loose. For each application, the manufacturer must determine whether the product meets relevant requirements related to small parts hazards or use in food contact items and assess any risk it may pose to users.

The use of crystals (which may contain restricted substances deemed hazardous under local laws) and adhesives on tableware is subject to legal restrictions in specific countries. The customer is fully responsible for complying with these country-specific provisions and shall defend, indemnify, and hold Swarovski harmless from any and all third-party claims based on product liability or otherwise relating to uses of Swarovski products, and waives all its own claims against Swarovski.

Unsuitable Applications

Crystals from Swarovski are intended for use in the fields of fashion, jewelry, accessories, textile products, and for interior décor. Due to their physical properties, crystals from Swarovski are unsuitable for other uses (e.g. gluing onto teeth, using on or near mucous membranes, and other unsafe uses). The customer shall defend, indemnify, and hold Swarovski harmless from any and all third-party claims based on product liability or otherwise relating to uses of Swarovski products purchased by the customer, and waives all its own claims.

Responsibility of User

Any oral, written, or test-based advice that Swarovski provides regarding techniques for the application of its products are recommendations based on Swarovski's current knowledge and the information provided by its suppliers. Such advice does not discharge the customer from carrying out its own tests of techniques it proposes to use and their suitability for the intended application. The application, use, and processing of these techniques and products are solely the user's responsibility.

CARE INSTRUCTIONS

Not following Swarovski care instructions can damage the product and thus lead to damage of textiles or other damage.

Please note that with all standard washing processes (whether carried out by a household washing machine or via dry cleaning) the rotation of the drum places significant mechanical forces on the textiles. The most important factor in ensuring a secure wash is correctly applying the product, without compromising its adhesion. The larger the product employed, and the more products are applied next to each other, the greater the risk of damage. Swarovski products are made out of crystal or contain crystal and must thus be handled with suitable care.

In general, it is recommended that a soft wash bag is used and that the washer drum is filled to protect against damage. To maintain the quality of crystals from Swarovski, the following is also important: before washing, turn items of clothing inside out, select a gentle wash cycle, and use a mild detergent. According to DIN EN ISO 3758, our care instructions list all product groups, meaning each product used by customers must be assessed separately with regard to its washability and suitability for its purpose/the end product. The recommendations given by Swarovski reflect our current level of knowledge. Swarovski uses these recommendations to decide on the suitability of the product for textile applications. Customers are solely responsible for defining the recommended cleaning process for the end product, and must consider the care advice of Swarovski and any other manufacturers in doing so. The type of shape, cut, surface effect, and size, as well as the weight of the application and the quantity of crystals used has a significant impact on the cleaning process to be followed.

To avoid all risks, customers/textile cleaning companies should remove any large crystal stones, buttons, etc., that have been stitched on before cleaning, and stitch them back on again afterwards.

Content is subject to change without notice.

Errors and misprints excepted.

Please note, the actual products may deviate from the pictures in color and effect.

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