

Cloisonne®

Color Pigments for Color Cosmetics and Personal Care
Products

Technical Information

November 2016

Cloisonné® Colors

Cloisonné effect enhancing pigments impart dramatic color and varied pearlescent effects to many types of cosmetics and personal care products. They are available in a variety of grades that provide different degrees of luster, ranging from a soft, satiny look to high sparkle.

To provide such highly intense color, each Cloisonné pigment contains an absorption colorant deposited on either a mica substrate or an interference pearl base. In grades that use an interference base, the colorant is selected to reinforce the reflection color of the interference pigment. The result is a single dramatic reflection/transmission color.

Cloisonné Colors – Typical Properties

CLOISONNE GRADE*	COMPOSITION	PARTICLE SIZE (µm) RANGE**	DENSITY (Kg/L)	APPROX. BULK DENSITY***	
				Lb/ft ³	g/100cm ³
Gold 222C	Mica, TiO ₂ , Fe ₂ O ₃	8 - 44µm	3.1	10	15.9
Orange 363C	Mica, TiO ₂ , Fe ₂ O ₃	9 - 44µm	3.3	13	20.7
Red 424C	Mica, TiO ₂ , Carmine	9 - 44µm	3.0	12	19.2
Violet 525C	Mica, TiO ₂ , Carmine, Ferric Ferrocyanide	9 - 45µm	3.0	16	25.6
Blue 626C	Mica, TiO ₂ , Ferric Ferrocyanide	9 - 45µm	3.0	15	23.7
Green 828C	Mica, TiO ₂ , Cr ₂ O ₃	8 - 44µm	3.2	18	28.7
Monarch Gold 233X	Mica, TiO ₂ , Fe ₂ O ₃	8 - 40µm	3.2	14	22.5
Regal Gold 233XB	Mica, TiO ₂ , Fe ₂ O ₃ , Fe ₃ O ₄	8 - 40µm	3.5	13	20.7
Golden Bronze 240X	Mica, TiO ₂ , Fe ₂ O ₃	8 - 40µm	3.2	10	15.9
Copper 340X	Mica, TiO ₂ , Fe ₂ O ₃	8 - 40µm	3.2	12	19.5
Rouge Flambé 440X	Mica, TiO ₂ , Fe ₂ O ₃	8 - 39µm	3.5	13	20.7
Cerise Flambé 550Z	Mica, Fe ₂ O ₃	9 - 35µm	3.5	10	15.2
Blue Flambé 650Z	Mica, Fe ₂ O ₃	9 - 36µm	3.5	9	14.8
Vivid Red 450DHCB	Mica, Fe ₂ O ₃ , TiO ₂ , SiO ₂	10 - 38µm	3.2	11	17.6

* Please refer to individual product specification sheets for certifiable product specifications

** The particle size results will vary depending on the light scattering instrument used. The values listed (as % by weight) are the results using a Malvern Mastersizer. 80% of particles are found between the ranges noted in the table.

*** Determined by ASTM Method D-716-86

Cloisonné Sparkle Colors

Cloisonné Sparkle Colors are intense and lustrous pigments that add a high degree of shimmer to a broad range of cosmetics and personal care products. Their large particle size makes them particularly well suited for dynamic, sparkly effects.

Cloisonné Sparkle Colors – Typical Properties

CLOISONNE SPARKLE GRADE*	COMPOSITION	PARTICLE SIZE (µm) RANGE**	DENSITY (Kg/L)	APPROX. BULK DENSITY***	
				Lb/ft ³	g/100cm ³
Sparkle Gold 222J	Mica, TiO ₂ , Fe ₂ O ₃	22 - 74µm	3.1	16	26
Sparkle Bronze 250J	Mica, Fe ₂ O ₃	18 - 75µm	3.1	16	26
Sparkle Copper 350J	Mica, Fe ₂ O ₃	18 - 75µm	3.1	16	26
Sparkle Red 424J	Mica, TiO ₂ , Carmine	17 - 61µm	3.2	21	33.6
Sparkle Rouge 450J	Mica, Fe ₂ O ₃	16 - 76µm	3.1	16	26
Sparkle Blue 626J	Mica, TiO ₂ , Ferric Ferrocyanide	23 - 84µm	2.3	22	35.4
Sparkle Blue Rouge 650J	Mica, Fe ₂ O ₃	15 - 74µm	3.1	16	26

* Please refer to individual product specification sheets for certifiable product specifications

** The particle size results will vary depending on the light scattering instrument used. The values listed (as % by weight) are the results using a Malvern Mastersizer. 80% of particles are found between the ranges noted in the table.

*** Determined by ASTM Method D-716-86

Cloisonné Super Colors

Cloisonné Super Colors are intermediate particle size interference pigments with superior chromaticity and metallic effects.

Cloisonné Colors – Typical Properties

CLOISONNE SUPER GRADE*	COMPOSITION	PARTICLE SIZE (µm) RANGE**	DENSITY (Kg/L)	APPROX. BULK DENSITY***	
				Lb/ft ³	g/100cm ³
Super Gold 232Z	Mica, TiO ₂ , Fe ₂ O ₃	9 - 36µm	3.2	14	22.5
Super Bronze 250Z	Mica, Fe ₂ O ₃	8 - 36µm	3.2	9	14.6
Super Red 434Z	Mica, TiO ₂ , Carmine	1 - 39µm	3.1	13	20.7
Super Rouge 450Z	Mica, Fe ₂ O ₃	8 - 36µm	3.4	10	15.9
Super Blue 636Z	Mica, TiO ₂ , Ferric Ferrocyanide	9 - 37µm	3.2	16	25.6
Super Green 827C	Mica, TiO ₂ , Fe ₂ O ₃ , Ferric Ferrocyanide	8 - 45µm	3.2	21	33.0

* Please refer to individual product specification sheets for certifiable product specifications

** The particle size results will vary depending on the light scattering instrument used. The values listed (as % by weight) are the results using a Malvern Mastersizer. 80% of particles are found between the ranges noted in the table.

*** Determined by ASTM Method D-716-86

Cloisonné Satin Colors

With their small particle size, Cloisonné Satin Colors add a soft luster to a wide range of cosmetics and personal care products.

Cloisonné Satin Colors – Typical Properties

CLOISONNE SATIN GRADE*	COMPOSITION	PARTICLE SIZE (µm) RANGE**	DENSITY (Kg/L)	APPROX. BULK DENSITY***	
				Lb/ft ³	g/100cm ³
Satin Bronze 250M	Mica, Fe ₂ O ₃	4 - 16µm	3.2	9	14.6
Satin Rouge 450M	Mica, Fe ₂ O ₃	4 - 18µm	3.2	9	14.6

* Please refer to individual product specification sheets for certifiable product specifications

** The particle size results will vary depending on the light scattering instrument used. The values listed (as % by weight) are the results using a Malvern Mastersizer. 80% of particles are found between the ranges noted in the table.

*** Determined by ASTM Method D-716-86

Cloisonné Nu-Antique Colors

Cloisonné Nu-Antique Colors impart a blackened pearlescent appearance to a wide range of cosmetics and personal care products. This is particularly useful in creating a complex interplay of color.

Cloisonné Nu-Antique Colors – Typical Properties

CLOISONNE NU-ANTIQUÉ GRADE*	COMPOSITION	PARTICLE SIZE (µm) RANGE**	DENSITY (Kg/L)	APPROX. BULK DENSITY***	
				Lb/ft ³	g/100cm ³
Nu-Antique Gold 222CB	Mica, TiO ₂ , Fe ₂ O ₃ , Fe ₃ O ₄	8 - 44µm	3.3	13	20.7
Nu-Antique Bronze 240XB	Mica, Fe ₂ O ₃ , Fe ₃ O ₄ , TiO ₂	8 - 40µm	3.4	13	20.7
Nu-Antique Copper 340XB	Mica, Fe ₂ O ₃ , Fe ₃ O ₄ , TiO ₂	7 - 39µm	3.6	14	22.4
Nu-Antique Red 424CB	Mica, Fe ₂ O ₃ , Fe ₃ O ₄ , TiO ₂ , Carmine	8 - 43µm	3.2	15	24
Nu-Antique Rouge Flambé 440XB	Mica, Fe ₂ O ₃ , Fe ₃ O ₄ , TiO ₂	7 - 39µm	3.7	14	22.4
Nu-Antique Blue 626CB	Mica, Fe ₂ O ₃ , Fe ₃ O ₄ , TiO ₂ , Ferric Ferrocyanide	8 - 44µm	3.2	16	25.6
Nu-Antique Super Green 827CB	Mica, Fe ₂ O ₃ , Fe ₃ O ₄ , TiO ₂ , Ferric Ferrocyanide	7 - 43µm	3.4	21	33
Nu-Antique Green 828CB	Mica, Fe ₂ O ₃ , Fe ₃ O ₄ , TiO ₂ , Cr ₂ O ₃	8 - 42µm	3.4	17	27

* Please refer to individual product specification sheets for certifiable product specifications

** The particle size results will vary depending on the light scattering instrument used. The values listed (as % by weight) are the results using a Malvern Mastersizer. 80% of particles are found between the ranges noted in the table.

*** Determined by ASTM Method D-716-86

Applications

Formulating Guidelines

Please be aware that certain Cloisonné grades contain ferric ferrocyanide, which fades in alkaline media and is stable in slightly acid media. The color stability of these grades should be tested in all potential formulations. They should not be sterilized with ethylene oxide, which reacts with ferric ferrocyanide.

Ferric ferrocyanide and chromium oxide green is not FDA approved for use in lipsticks, mouthwashes, dentifrices, and other products that are potentially subject to ingestion.

Cloisonné grades containing carmine should not be heated above 120°C and may be susceptible to fading over time upon exposure to light. If these grades are added to products packaged in transparent containers, the packaging material should contain UV absorbers to extend product shelf life.

All other Cloisonné colors are chemical stable under conditions normally encountered in cosmetic and personal care formulation, production, and use. However, all grades should be tested in potential formulations before commercialization in order to determine if performance will be acceptable.

Since regulations change over time, we recommend that appropriate use of each colorant be confirmed against each region's current cosmetic regulations.

Physical and Chemical Properties

Solubility

With the exception of carmine, all components found in Cloisonné pigments are inorganic and therefore insoluble in water.

pH

The pH of these products is measured by adding 4 grams of the pigment into 96 mL of water. This value can be found on the specification sheet.

Specifications

For product specifications, refer to the respective specification sheet (separate document) for each Cloisonné product.

The color additive components in the products identified in this data sheet meet the applicable FDA (21 CFR Part 73), EU Cosmetic Regulation EC/1223/2009 (Annex IV, including EC-231-2012 requirements), Japan MHW, Korean Cosmetics Colorants Standard, and China's Cosmetic Safety and Technical Standard (2015 version) specifications and purity requirements.

Microbial status for Cloisonné products:

Total aerobic bacteria	100 CFU/g max.
Yeast & mold	100 CFU/g max.
Gram-negative bacteria	absent in 10g
E. coli	absent in 10g
Pseudomonas aeruginosa	absent in 10g
Staphylococcus aureus	absent in 10g

Storage

Cloisonné pigments have storage stability of at least 10 years from the date of manufacture, provided that they are stored in unopened original containers, protected from light, and under normal conditions of temperature and humidity.

Safety Data Sheet

A Safety Data Sheet for each Cloisonné pigment is available.

Further Product Ranges

Bi-Lite[®] Bismuth Oxychloride/Mica Pigments
Cellini[®] Colors
Chione[™] Pigments
Chroma-Lite[®] Colors
Cloisonné[®] Colors
Duochrome[®] Iridescent Colors
Flamenco[®] Pearlescent and Iridescent Pigments

Gemtone® Colors
 Mearlite® and Biju® Ultra Bismuth Oxychloride Pigments
 Mearlmica® Specialty Performance Mica
 MultiReflections™ Iridescent Pigments
 Pearl-Glo® Bismuth Oxychloride Pigments
 Reflects™ Pearlescent and Iridescent Pigments and Colors
 Reflects™ Dimensions Pearlescent and Iridescent Pigments and Colors
 Reflects™ MultiDimensions Color Changing Pigments
 Timica® Luster Pigments

Appendix – Cloisonné Product Compositions

Table 1: Cloisonné Colors

Colorant	By Weight	CI No.	CAS No.	EINECS No.
Cloisonné Gold 222C - INCI Name: Mica (and) Titanium Dioxide (and) Iron Oxides				
Mica	50 – 66 %	77019	12001-26-2	310-127-6
TiO ₂	32 – 43 %	77891	13463-67-7	236-675-5
Fe ₂ O ₃	2 – 7 %	77491	1309-37-1	215-168-2
Cloisonné Orange 363C - INCI Name: Mica (and) Titanium Dioxide (and) Iron Oxides				
Mica	42 – 70 %	77019	12001-26-2	310-127-6
Fe ₂ O ₃	15 – 34 %	77491	1309-37-1	215-168-2
TiO ₂	15 – 24 %	77891	13463-67-7	236-675-5
Cloisonné Red 424C - INCI Name: Mica (and) Titanium Dioxide (and) Carmine				
Mica	47 – 62 %	77019	12001-26-2	310-127-6
TiO ₂	37 – 49 %	77891	13463-67-7	236-675-5
Carmine	0.8 – 3.5 %	75470	1390-65-4	215-724-4
Cloisonné Violet 525C - INCI Name: Mica (and) Titanium Dioxide (and) Carmine (and) Ferric Ferrocyanide				
Mica	44 – 62 %	77019	12001-26-2	310-127-6
TiO ₂	38 – 50 %	77891	13463-67-7	236-675-5
Carmine	0.7 – 3 %	75470	1390-65-4	215-724-4
Fe ₄ [Fe(CN) ₆] ₃	0.2 – 3 %	77510	14038-43-8	237-875-5
Cloisonné Blue 626C - INCI Name: Mica (and) Titanium Dioxide (and) Ferric Ferrocyanide				
Mica	43 – 60 %	77019	12001-26-2	310-127-6
TiO ₂	39 – 53 %	77891	13463-67-7	236-675-5
Fe ₄ [Fe(CN) ₆] ₃	1 – 4 %	77510	14038-43-8	237-875-5
Cloisonné Green 828C - INCI Name: Mica (and) Titanium Dioxide (and) Chromium Oxide Greens				
Mica	38 – 54 %	77019	12001-26-2	310-127-6
TiO ₂	43 – 53 %	77891	13463-67-7	236-675-5
Cr ₂ O ₃	3 – 9 %	77288	1308-38-9	215-160-9
Cloisonné Monarch Gold 233X - INCI Name: Mica (and) Titanium Dioxide (and) Iron Oxides				
Mica	44 – 61 %	77019	12001-26-2	310-127-6
TiO ₂	38 – 48 %	77891	13463-67-7	236-675-5
Fe ₂ O ₃	3 – 7 %	77491	1309-37-1	215-168-2
SnO ₂	< 1 %	-	18282-10-5	242-159-0

Colorant	By Weight	CI No.	CAS No.	EINECS No.
Cloisonné Regal Gold 233XB - INCI Name: Mica (and) Titanium Dioxide (and) Iron Oxides				
Mica	31 – 56 %	77019	12001-26-2	310-127-6
TiO ₂	29 – 41 %	77891	13463-67-7	236-675-5
Fe ₃ O ₄	12 – 26 %	77499	1317-61-9	215-277-5
Fe ₂ O ₃	5 – 10 %	77491	1309-37-1	215-168-2
SnO ₂	< 1 %	-	18282-10-5	242-159-0
Cloisonné Golden Bronze 240X - INCI Name: Mica (and) Iron Oxides (and) Titanium Dioxide				
Mica	53 – 71.8 %	77019	12001-26-2	310-127-6
Fe ₂ O ₃	28 – 42 %	77491	1309-37-1	215-168-2
TiO ₂	0.2 – 5 %	77891	13463-67-7	236-675-5
Cloisonné® Copper 340X - INCI Name: Mica (and) Iron Oxides (and) Titanium Dioxide				
Mica	45 – 65 %	77019	12001-26-2	310-127-6
Fe ₂ O ₃	34 – 51 %	77491	1309-37-1	215-168-2
TiO ₂	0.2 – 4 %	77891	13463-67-7	236-675-5
Cloisonné Rouge Flambé 440X - INCI Name: Mica (and) Iron Oxides (and) Titanium Dioxide				
Mica	42 – 62 %	77019	12001-26-2	310-127-6
Fe ₂ O ₃	38 – 54 %	77491	1309-37-1	215-168-2
TiO ₂	0.2 – 4 %	77891	13463-67-7	236-675-5
Cloisonné Cerise Flambé 550Z - INCI Name: Mica (and) Iron Oxides				
Mica	47 – 57 %	77019	12001-26-2	310-127-6
Fe ₂ O ₃	43 – 53 %	77491	1309-37-1	215-168-2
Cloisonné Blue Flambé 650Z - INCI Name: Mica (and) Iron Oxides				
Mica	45 – 55 %	77019	12001-26-2	310-127-6
Fe ₂ O ₃	45 – 55 %	77491	1309-37-1	215-168-2
Cloisonné Vivid Red 450DHCB - INCI Name: Mica (and) Iron Oxides (and) Titanium Dioxide (and) Silica				
Mica	47.2 – 63.5 %	77019	12001-26-2	310-127-6
Fe ₂ O ₃	22.9 – 34.2 %	77491	1309-37-1	215-168-2
TiO ₂	6.1 – 13.8 %	77891	13463-67-7	236-675-5
SiO ₂	5.5 – 9.0 %	-	7631-86-9	231-545-4
SnO ₂	< 1 %	-	18282-10-5	242-159-0

Table 2: Cloisonné Sparkle Colors

Colorant	By Weight	CI No.	CAS No.	EINECS No.
Cloisonné Sparkle Gold 222J - INCI Name: Mica (and) Titanium Dioxide (and) Iron Oxides				
Mica	67 – 83 %	77019	12001-26-2	310-127-6
TiO ₂	15 – 27 %	77891	13463-67-7	236-675-5
Fe ₂ O ₃	2 – 6 %	77491	1309-37-1	215-168-2

Colorant	By Weight	CI No.	CAS No.	EINECS No.
Cloisonné Sparkle Bronze 250J - INCI Name: Mica (and) Iron Oxides				
Mica	74 – 86 %	77019	12001-26-2	310-127-6
Fe ₂ O ₃	14 – 26 %	77491	1309-37-1	215-168-2
Cloisonné Sparkle Copper 350J - INCI Name: Mica (and) Iron Oxides				
Mica	70 – 82 %	77019	12001-26-2	310-127-6
Fe ₂ O ₃	18 – 30 %	77491	1309-37-1	215-168-2
Cloisonné Sparkle Red 424J - INCI Name: Mica (and) Titanium Dioxide (and) Carmine				
Mica	68 – 78 %	77019	12001-26-2	310-127-6
TiO ₂	20 – 30 %	77891	13463-67-7	236-675-5
Carmine	2 – 4 %	75470	1390-65-4	215-724-4
Cloisonné Sparkle Rouge 450J - INCI Name: Mica (and) Iron Oxides				
Mica	68 – 80 %	77019	12001-26-2	310-127-6
Fe ₂ O ₃	20 – 32 %	77491	1309-37-1	215-168-2
Cloisonné Sparkle Blue 626J - INCI Name: Mica (and) Titanium Dioxide (and) Ferric Ferrocyanide				
Mica	63 – 75 %	77019	12001-26-2	310-127-6
TiO ₂	23 – 33 %	77891	13463-67-7	236-675-5
Fe ₄ [Fe(CN) ₆] ₃	2 – 4 %	77510	14038-43-8	237-875-5
Cloisonné Sparkle Blue-Rouge 650J - INCI Name: Mica (and) Iron Oxides				
Mica	65 – 77 %	77019	12001-26-2	310-127-6
Fe ₂ O ₃	23 – 35 %	77491	1309-37-1	215-168-2

Table 3: Cloisonné Super Colors

Colorant	By Weight	CI No.	CAS No.	EINECS No.
Cloisonné Super Gold 232Z - INCI Name: Mica (and) Titanium Dioxide (and) Iron Oxides				
Mica	49 – 61 %	77019	12001-26-2	310-127-6
TiO ₂	37 – 45 %	77891	13463-67-7	236-675-5
Fe ₂ O ₃	2 – 5 %	77491	1309-37-1	215-168-2
SnO ₂	< 1 %	-	18282-10-5	242-159-0
Cloisonné Super Bronze 250Z - INCI Name: Mica (and) Iron Oxides				
Mica	58 – 71 %	77019	12001-26-2	310-127-6
Fe ₂ O ₃	29 – 42 %	77491	1309-37-1	215-168-2
Cloisonné Super Red 434Z - INCI Name: Mica (and) Titanium Dioxide (and) Carmine				
Mica	44 – 60 %	77019	12001-26-2	310-127-6
TiO ₂	39 – 53 %	77891	13463-67-7	236-675-5
Carmine	1 – 3 %	75470	1390-65-4	215-724-4
SnO ₂	< 1 %	-	18282-10-5	242-159-0

Colorant	By Weight	CI No.	CAS No.	EINECS No.
Cloisonné Super Rouge 450Z - INCI Name: Mica (and) Iron Oxides				
Mica	50 – 59 %	77019	12001-26-2	310-127-6
Fe ₂ O ₃	41 – 50 %	77491	1309-37-1	215-168-2
Cloisonné Super Blue 636Z - INCI Name: Mica (and) Titanium Dioxide (and) Ferric Ferrocyanide				
Mica	41 – 54 %	77019	12001-26-2	310-127-6
TiO ₂	44 – 54 %	77891	13463-67-7	236-675-5
Fe ₄ [Fe(CN) ₆] ₃	2 – 4 %	77510	14038-43-8	237-875-5
SnO ₂	< 1 %	-	18282-10-5	242-159-0
Cloisonné Super Green 827C - INCI Name: Mica (and) Titanium Dioxide (and) Iron Oxides (and) Ferric Ferrocyanide				
Mica	32 – 50 %	77019	12001-26-2	310-127-6
TiO ₂	46 – 57 %	77891	13463-67-7	236-675-5
Fe ₂ O ₃	3 – 7 %	77491	1309-37-1	215-168-2
Fe ₄ [Fe(CN) ₆] ₃	1 – 4 %	77510	14038-43-8	237-875-5

Table 4: Cloisonné Satin Colors

Colorant	By Weight	CI No.	CAS No.	EINECS No.
Cloisonné Satin Bronze 250M - INCI Name: Mica (and) Iron Oxides				
Mica	44 – 56 %	77019	12001-26-2	310-127-6
Fe ₂ O ₃	44 – 56 %	77491	1309-37-1	215-168-2
Cloisonné Satin Rouge 450M - INCI Name: Mica (and) Iron Oxides				
Mica	31 – 44 %	77019	12001-26-2	310-127-6
Fe ₂ O ₃	56 – 69 %	77491	1309-37-1	215-168-2

Table 5: Cloisonné Nu-Antique Colors

Colorant	By Weight	CI No.	CAS No.	EINECS No.
Cloisonné Nu-Antique Gold 222CB - INCI Name: Mica (and) Titanium Dioxide (and) Iron Oxides				
Mica	37 – 62 %	77019	12001-26-2	310-127-6
TiO ₂	26 – 37 %	77891	13463-67-7	236-675-5
Fe ₃ O ₄	11 – 19 %	77499	1317-61-9	215-277-5
Fe ₂ O ₃	3 – 7 %	77491	1309-37-1	215-168-2

Colorant	By Weight	CI No.	CAS No.	EINECS No.
Cloisonné Nu-Antique Bronze 240XB - INCI Name: Mica (and) Iron Oxides (and) Titanium Dioxide				
Mica	42 – 65 %	77019	12001-26-2	310-127-6
Fe ₂ O ₃	20 – 38 %	77491	1309-37-1	215-168-2
Fe ₃ O ₄	11 – 19 %	77499	1317-61-9	215-277-5
TiO ₂	0.2 – 5 %	77891	13463-67-7	236-675-5
Cloisonné Nu-Antique Copper 340XB - INCI Name: Mica (and) Iron Oxides (and) Titanium Dioxide				
Mica	32 – 60.2 %	77019	12001-26-2	310-127-6
Fe ₂ O ₃	30 – 45 %	77491	1309-37-1	215-168-2
Fe ₃ O ₄	11 – 19 %	77499	1317-61-9	215-277-5
TiO ₂	0.2 – 4 %	77891	13463-67-7	236-675-5
Cloisonné Nu-Antique Red 424CB - INCI Name: Mica (and) Titanium Dioxide (and) Iron Oxides (and) Carmine				
Mica	35.7–58.5 %	77019	12001-26-2	310-127-6
TiO ₂	30 – 42 %	77891	13463-67-7	236-675-5
Fe ₃ O ₄	11 – 19 %	77499	1317-61-9	215-277-5
Fe ₂ O ₃	1 – 5 %	77491	1309-37-1	215-168-2
Carmine	0.5 – 3.3 %	75470	1390-65-4	215-724-4
Cloisonné Nu-Antique Rouge Flambé 440XB - INCI Name: Mica (and) Iron Oxides (and) Titanium Dioxide				
Mica	30 – 57.4 %	77019	12001-26-2	310-127-6
Fe ₂ O ₃	32 – 47 %	77491	1309-37-1	215-168-2
Fe ₃ O ₄	11 – 19 %	77499	1317-61-9	215-277-5
TiO ₂	0.2 – 4 %	77891	13463-67-7	236-675-5
Cloisonné Nu-Antique Blue 626CB - INCI Name: Mica (and) Titanium Dioxide (and) Iron Oxides (and) Ferric Ferrocyanide				
Mica	31 – 56.4 %	77019	12001-26-2	310-127-6
TiO ₂	32 – 46 %	77891	13463-67-7	236-675-5
Fe ₃ O ₄	11 – 19 %	77499	1317-61-9	215-277-5
Fe ₂ O ₃	1 – 5 %	77491	1309-37-1	215-168-2
Fe ₄ [Fe(CN) ₆] ₃	0.6 – 4 %	77510	14038-43-8	237-875-5
Cloisonné Nu-Antique Super Green 827CB - INCI Name: Mica (and) Titanium Dioxide (and) Iron Oxides (and) Ferric Ferrocyanide				
Mica	21 – 48.8 %	77019	12001-26-2	310-127-6
TiO ₂	38 – 49 %	77891	13463-67-7	236-675-5
Fe ₃ O ₄	13 – 26 %	77499	1317-61-9	215-277-5
Fe ₂ O ₃	1 – 5 %	77491	1309-37-1	215-168-2
Fe ₄ [Fe(CN) ₆] ₃	0.6 – 4 %	77510	14038-43-8	237-875-5
Cloisonné Nu-Antique Green 828CB - INCI Name: Mica (and) Titanium Dioxide (and) Iron Oxides (and) Chromium Oxide Greens				
Mica	27 – 52 %	77019	12001-26-2	310-127-6
TiO ₂	35 – 46 %	77891	13463-67-7	236-675-5
Fe ₃ O ₄	11 – 19 %	77499	1317-61-9	215-277-5
Fe ₂ O ₃	1 – 5 %	77491	1309-37-1	215-168-2
Cr ₂ O ₃	2 – 8 %	77288	1308-38-9	215-160-9

Product Range

Product	PRD-No.
Cloisonné® Blue 626C	30322194
Cloisonné® Blue Flambé 650Z	30322195
Cloisonné® Cerise Flambé 550Z	30322197
Cloisonné® Copper 340X	30322198
Cloisonné® Gold 222C	30322199
Cloisonné® Golden Bronze 240X	30322200
Cloisonné® Green 828C	30322201
Cloisonné® Monarch Gold 233X	30322203
Cloisonné® NU-Antique Blue 626CB	30322206
Cloisonné® NU-Antique Bronze 240XB	30322207
Cloisonné® NU-Antique Copper 340XB	30322208
Cloisonné® NU-Antique Gold 222CB	30322209
Cloisonné® NU-Antique Green 828CB	30322210
Cloisonné® NU-Antique Red 424CB	30322219
Cloisonné® NU-Antique Rouge Flambe 440XB	30322204
Cloisonné® NU-Antique Super Green 827CB	30322205
Cloisonné® Orange 363C	30322220
Cloisonné® Red 424C	30322221
Cloisonné® Regal Gold 233XB	30322222
Cloisonné® Rouge Flambé 440X	30322223
Cloisonné® Satin Bronze 250M	30322224
Cloisonné® Satin Rouge 450M	30322227
Cloisonné® Sparkle Blue 626J	30322228
Cloisonné® Sparkle Blue-Rouge 650J	30322235
Cloisonné® Sparkle Bronze 250J	30322236
Cloisonné® Sparkle Copper 350J	30322237
Cloisonné® Sparkle Gold 222J	30322238
Cloisonné® Sparkle Red 424J	30322239
Cloisonné® Sparkle Rouge 450J	30322240
Cloisonné® Super Blue 636Z	30322241
Cloisonné® Super Bronze 250Z	30322242
Cloisonné® Super Gold 232Z	30322250
Cloisonné® Super Green 827C	30322251
Cloisonné® Super Red 434Z	30322252
Cloisonné® Super Rouge 450Z	30322253
Cloisonné® Violet 525C	30322254
Cloisonné® Vivid Red 450DHCB	30543243

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