

FERRO

CERAMIC PIGMENTS



**UNMATCHED
PERFORMANCE**



For your Most Demanding Applications



Ferro Corporation
Dinnerware Systems & Industrial Specialty Products
4150 East 56th Street
Cleveland, Ohio 44105
Tel: 216-641-8580 Fax: 216-750-7519 www.ferro.com



Ferro touches your life every day

Headquartered in Cleveland, Ohio, USA, Ferro Corporation is a world leading producer of Performance Materials, with operations in 20 countries across Europe, Asia, and the Americas.

We apply core technologies in organic and inorganic chemistry to develop leading market positions in a diverse range of industries.

Our mission is "to achieve market leadership through a customer-focused and highly creative organization committed to delivering top quality products and outstanding services to customers worldwide".

Our materials are used to add value to, and to improve the performance of products in a variety of end markets including building and renovation, home appliances, cookware, giftware and tableware, transportation, household furnishings, leisure, electronics, and industrial products.

We are among the world's leading suppliers of ceramic glazes and colors, glass decoration, precious metal preparations, specialty glasses, porcelain enamel coatings, auxiliary materials, and pigments. We pioneered the development of hearth color technology for coloring of glass.

Our global commitment to quality, reliability, innovation, and personal customer care is founded on over 80 years of experience in serving the changing needs of the industry, from our international network of manufacturing plants and service centers. Our commitment to quality management has been recognized with the award of ISO 9000 accreditation to all of our global manufacturing and research facilities.

Meeting the needs of the Color World calls for great foresight, flexibility, and Innovation...

*Our global presence is a strong competitive advantage. Technical, marketing, and management personnel are in continuous contact with customers in every major region. Multinational customers can be assured of standard products and consistent quality wherever they have operations.

*We coordinate our R&D activities globally and use our international talent to ensure that product specifications and performance are designed to satisfy the specific requirements demanded by regional markets.

*Ferro views the growing world-wide concern for the environment as an opportunity to develop improved products and also to participate in Chemical Industry efforts to address public concern. Environmental concerns are a major driving force behind the evolution of our lead- and cadmium-free technology and our low VOC decorating systems.

*The markets we cover are extremely service-intensive. Ferro has established regional color matching, blending/pasting, and technical support facilities, to provide the level of service demanded by our customers in all time zones.

Think of us as High Performance Partner to manufacturers around the world...

...Helping to create and enhance many of the products you use and enjoy every day of your life.

Ceramic Glaze Stains

Standard Colors



C-620EZ



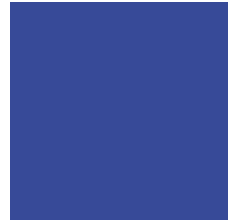
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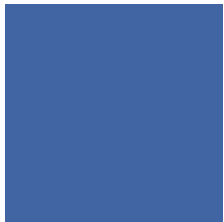
C-292EZ



41715A



4028A



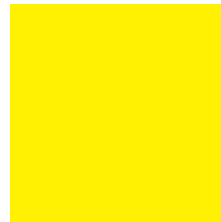
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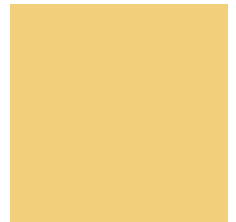
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C-287EZ



C-416EZ



41719A



F-3786EZ



F-3794EZ



C-790EZ



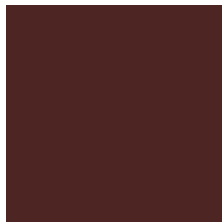
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C-181EZ



C-182EZ



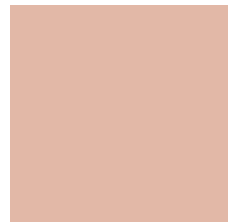
C-184EZ



C-1865EZ



C-892EZ



41833A



41597A



C-1802EZ



41188A



239 616



279 496

Colors are approximate & for reference only

Ceramic Glaze Stains

Pigments for Ceramic Applications - Technical Data Summary Chart

Product	Color	Composition	Color Index Number	CPMA Number Code	CAS Number	Stable Firing Range	Special Needs
C620EZ	Teal	CoCr	Blue 36	Spinel 13-29-2	68187-11-1	Cone 06-12	Avoid high zinc glazes
41172A	French Green	CoCrMgAlZn	Green 26	Spinel 13-30-3	68187-49-5	Cone 06-12	
C292EZ	Turquoise	ZrV	Blue 71	Zircon 14-42-2	68186-95-8	Cone 06-12	Zircon opacified glazes
41715A	Turquoise	ZrV	Blue 71	Zircon 14-42-2	68186-95-8	Cone 06-12	Zircon opacified glazes
4028A	Cobalt Blue	CoSi	Blue 73	Olivine 5-08-2	68187-40-6	Cone 06-12	
C202EZ	Cobalt Blue	CoSi	Blue 73	Olivine 5-08-2	68187-40-6	Cone 06-12	
C2222EZ	Deep Blue	CoAl	Blue 28	Spinel 13-26-2	68186-86-7	Cone 06-12	
C287EZ	Light blue	CoZnAl	Blue 72	Spinel 13-28-2	68186-87-8	Cone 06-12	
C416EZ	Yellow	ZrPrSi	Yellow 159	Zircon 14-43-4	68187-15-5	Cone 06-12	Zircon opacified glazes
41719A	Yellow	ZrVSi	Yellow 160	Baddeleyite 1-01-4	68187-01-9	Cone 06-12	Zircon opacified glazes
F3786EZ	Black	CrFe	Black 27	Spinel 13-33-7	68186-97-0	Cone 06-12	Avoid zinc
F3794EZ	Black	CoCrNiFe	Black 27	Spinel 13-40-9	68186-97-0	Cone 06-12	
C790EZ	Gray	ZrCoNi	Black 25	Periclase 6-09-8	68186-89-0	Cone 06-12	Zircon opacified glazes
41166A	Dark Gray	CoNiMnCrSi	Black 25	Periclase 6-09-8	68186-89-0	Cone 06-12	Zircon opacified glazes
C181EZ	Yellow Brown	CrZnFeAl	Brown 33	Spinel 13-33-7	68186-88-9	Cone 06-12	Avoid high Ca/Mg glazes
C182EZ	Red Brown	CrZnFe	Brown 33	Spinel 13-33-7	68186-88-9	Cone 06-12	Avoid high Ca/Mg glazes
C184EZ	Dark Brown	CrZnFe	Brown 33	Spinel 13-33-7	68186-88-9	Cone 06-12	Avoid high Ca/Mg glazes
C1865EZ	Peach	ZrFe	Red 232	Zircon 14-44-5	68187-13-3	Cone 06-12	Avoid reducing atmosphere
C892EZ	Peach	ZrFe	Red 232	Zircon 14-44-5	68187-13-3	Cone 06-12	Avoid reducing atmosphere
41833A	Peach	ZrFe	Red 232	Zircon 14-44-5	68187-13-3	Cone 06-12	Avoid reducing atmosphere
41597A	Coral	ZrFe	Red 232	Zircon 14-44-5	68187-13-3	Cone 06-12	Avoid reducing atmosphere
C1802EZ	Maroon	CrSn	Red 233	Sphene 12-25-5	68187-12-2	Cone 06-12	Avoid zinc and MgO
41188A	Pink	CrSn	Red 233	Sphene 12-25-5	68187-12-2	Cone 06-12	Avoid zinc and MgO
239 616	Orange	ZrSiCdSSe			Mixture	Cone 06-12	Avoid milling into glaze
279 496	Red	ZrSiCdSSe			Mixture	Cone 06-12	Avoid milling into glaze

Features

Innovative, high quality, reliable coloring products
 Easily dispersable
 Optimum Glaze Compatibility
 Cost effectiveness: No capital investment, no mill clean up time
 Flexible production: Fast color switches

Applications

Dinnerware
 Sanitaryware
 Pottery
 Hobby Industry
 Wall & Floor tile
 Glazed Brick
 Roof Tile Glazes & Engobes

For additional information regarding Ferro's line of Ceramic Pigments, contact your local Ferro representative or contact us at the address and phone number listed below. Also check our web site at www.ferro.com

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 Facsimile: 216-750-7519

Data or recommendations are based on laboratory preparation and/or testing samples; therefore they cannot be expected to fully duplicate commercial production or field performance. Final approval and acceptance should be based on appropriate production and service tests.

 **FERRO**
 Performance Pigments and Colors
 04-09