



Kraft Micaceous Iron Oxide

Directory FG's

Number	Binder	Type	Note
FG1	Alkyd	Intermediate Coat, Top Coat	
FG 1A	Alkyd		Description of properties
FG 2	Alkyd	Intermediate Coat, Top Coat	
FG 4	2-pack Epoxy	Intermediate Coat	
FG 4-2	2-pack Epoxy	Intermediate Coat	
FG 5	2-pack Epoxy	Intermediate Coat, Top Coat	
FG 5-1	2-pack Epoxy	Intermediate Coat, Top Coat	
FG 6	2-pack Epoxy	Top Coat	
FG 6-1	2-pack Epoxy	Top Coat	
FG 7	Acrylic	Intermediate Coat, Top Coat	
FG 7-2	Acrylic	Primer, Top coat	Water reducible
FG 8	Urethane-Alkyd	Primer, Intermediate Coat	
FG 9	PVC	Intermediate Coat, Top Coat	
FG 10	Chlorinated Rubber	Intermediate Coat, Top Coat	
FG 11	2-pack PUR	Intermediate Coat, Top Coat	
FG 12	Chlorinated Rubber	Intermediate Coat, Top Coat	
FG 13	1-Pack PUR	Intermediate Coat, Top Coat	
FG 13 A	1-Pack PUR	Intermediate Coat, Top Coat	
FG 14	2-Pack PUR	Intermediate Coat, Top Coat	
FG 15	Acrylic	Intermediate Coat, Top Coat	Water Reducible
FG 15-2	Acrylic	Intermediate Coat, Top Coat	Water Reducible
FG 17-1	Silicon	Top Coat	
	Bitumen	Top Coat	
Top Coat			
FG 24	PVC-Acrylic	Top coat	
FG 25	PVC-Acrylic	Top Coat	
FG 26	PVC-Acrylic	Top Coat	



FG 27	2-Pack Epoxy	Intermediate Coat	
FG 28	2-Pack Epoxy	Intermediate Coat	
FG 29	2-Pack Epoxy	Top Coat	
FG 30	Urethane-Alkyd	Top Coat	
FG 31	2-Pack Epoxy	Primer	
FG 32	Epoxy Ester	Top Coat	
FG 33	PVC-Alkyd	Primer	
FG 34	PVC-Alkyd	Intermediate Coat	
FG 35	PVC-Alkyd	Top Coat	
FG 36	PVC-Alkyd	Top Coat	
FG 37	PVC-Alkyd	Primer	
FG 38	1-Pack PUR	Primer	Moisture Curing
FG 39	1-Pack PUR	Primer	Moisture Curing
FG 40	1-Pack PUR	Intermediate Coat	Moisture Curing
FG 41	1-Pack PUR	Top Coat	Moisture Curing
FG 42	2-Pack-Epoxy	Primer	
FG 43	1-Pack PUR	Top Coat	Moisture Curing
FG 43/1	1-Pack PUR	Top Coat	Moisture Curing (USA)
FG 44	1-Pack Ethylsilicate	Primer	
FG 45	1-Pack Ethylsilicate	Primer	
FG 46	2-Pack Ethylsilicate	Primer	
FG 47	2-Pack Ethylsilicate	Primer	

(Additional formulas are available. Please call 708.345.5200 for a complete list or a detailed formulary)

Kraft Micaceous Iron Oxide Technical Information FG 1

Typical properties:

		Intermediate- coat	Topcoat
Colour		grey	green
Solid matter	% w/w	77	76
PVC	% v/v	40	35
Density	g/cm ³	1.65	1.56
Viscosity (Brookfield LV)	Pa.s	5-7	2-2.7
Viscosity (flow cup)	s	-	-
Degree of gloss 85°	%	-	-
Surface dry	h	ca. 1	ca. 1
Hard dry	h	ca. 8	ca. 8
Flow		good	very good

Application:

Application is possible by brush, roller, airspray or airless spray.

Recommended dilution (solvent: white spirit):

brush	0-3 %	0-3 %
air spray	ca. 15 %	10-15 %
airless spray	3-5 %	0-5 %
film thickness	70 µm	60 µm
range of film thickness	50-70 µm	40-80 µm

Suitable for corrosion protection in country side-, city- and light industrial atmosphere.

Recommended primers: usual red lead or zinc phosphate primers.

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Kraft Micaceous Iron Oxide Technical Information FG 1 – A

Micaceous Iron Oxide Paints Based on Alkyd Resins

For coatings of steel structures many types of long oil alkyd resin modified with drying oils are suitable. Usually an oil length of 55-75 % with a phthalic acid content of 18-25 % (sometimes of 30 %) and solutions of 50-70 % in white spirit are used. Some examples are given in the following:

type of oil or fatty acid	typical properties
1) Linseed oil	good drying, weather resistant, prone to yellowing
2) Tall oil fatty acid	good drying, cheap, prone to yellowing
3) Synthetic fatty acids and fatty acid mixtures	composition optimized according to field of useage
4) Linseed oil/tung oil	fast drying, good adhesion, water resistant
5) dehydrated Castor oil	good drying, no yellowing
6) Soja oil	no yellowing, good gloss retention, slow drying
7) Fishoil	good wetting

Often modified alkyd resins are used which have improved properties:

modifying component	achieved improvement
8) Styrene/vinyltoluene	drying, hardness, water resistance
9) Acrylics	drying, resistance to chemicals and light
10) Silicon compounds	heat and weather resistance
11) a) Isocyanate compounds b) Urethane oils	hardness, resistance to weather and chemicals
12) Epoxy compounds	drying, hardness, resistance to chemicals
13) Phenolic resins Natural resins	filling rate, water resistance
14) thixotrope alkyd resins	for thick film coatings
15) water dilutable alkyd resins and alkyd resin emulsiones	lower organic solvent content, lower toxicity

Kraft Micaceous Iron Oxide Technical Information FG 1 - A

review of some commercial products						
	A	B	C	D	E	F
1	Vialkyd AL 670	Alftalat AL 650 m	Beckosol L 650 L 700	Alkydal L 49 L 64	Jägalyd T 63	Uralac (D 1075 W) D 1475 W 1273
2	AT 624 m	AT 556	T 690	F 67	FS 1378	D 3160 W 74-P-ML-70
3	AF 654 AF 613 AM 764	AF 640 AM 649	M 620	(F48), F68 F69, F650	FS64, 66 FS 1701 MA 1878	D42360X D 39555 W
4	AM 714	(AM 440)	(LH 380) LH 700	-	(TH 50)	D 3475 X (94 X 60)
5	AR 663	AR 680	D 670	-	R 65	D 5275 W
6	AS 602 AS 673	AS 630 AS 632	S 580 S 630, 650	S 6500	SO 641 SO 65 MA 2118	D 3775 W D 4770 W
7			F 650		GR 65	
8	(AV352m) AV 462	AV 381	Styresol S 450 S 651	(V 10)	VR 27	66N-PH-60 D 9170 W
9	AY 472	AY 402			A 2249	-
10	TS 354				SA 2211	D 9960 W
11 a) b)	TO 604	(Daotan TO 604)	Urotufalk S 550 (Urotuföl L 650)	(U 601) Desmalkyd	U 600	401-ML-55 182 ML 60

Kraft Micaceous Iron Oxide Technical Information FG 1 – A

review of some commercial products (continued from page 2)						
	A	B	C	D	E	F
12	EF 908 (Epoxid- ester)	Duroxyn EF 900	(Epoxid- ester)		EF 56 (Epoxid- ester)	Uranox 1200-ML-60 (Epoxid- ester)
13	AM-Reihe	(AM 440)			(TH 50)	D 3475 X (94 X 60)
14	Gelkyd (310)320	AT 556 thix	Beckogel S 630		FS663 thix S060 thix Thix 1913	Urathix 4929 ML 60
15	Resydrol VWA 4373 VWA 4300	Resydrol		F 50 W	EE 47 SO 400 WE 97	Uradil 580Z-42

Kraft Micaceous Iron Oxide Technical Information FG 1 – A

review of some commercial products	
G	
1	(AD 10 W-75) AD 14 W-75 AD 7
2	AD 86 W-60 AD 87 W-70
3	(AK 423 X-60) AD 118 W-55
4	AM 360 X-75 (AM 352 X-60)
5	AD 123 W 75
6	AD 43 W 75 AD 57 W-70
7	
8	AV 402 V4-60 AV 403 10-70
9	-
10	AQ 270 W-60
11	a) AR 210 W-55 b) QU 714 W-60
12	EV 12 W-60
13	AM 360 X-75 AM 352 X 60 (AM 187 W-70)
14	AT 402 W 60
15	AZ 600 Z 42

Types in brackets are mainly used for primers.



Kraft Micaceous Iron Oxide Technical Information FG 1 – A

Code for suppliers:

- A) Cray Valley Products Ltd., Farnborough, UK-Kent BR6 7EA
- B) Hoechst AG, D-6230 Frankfurt 80
- C) Blagden Chemicals, Croydon, UK-Surrey CR9 3QU
- D) Bayer AG, D-5090 Leverkusen
- E) Jäger, D-4000 Düsseldorf 13
- F) DSM Resins BV, NL 8022 AW Zwolle

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Kraft Micaceous Iron Oxide Technical Information FG 2

<u>Typical properties:</u>		Intermediate-coat	Topcoat
Colour		silver grey	light brown
Solid matter	% w/w	76	81
PVC	% v/v	43	33
Density	g/cm ³	1.66	1.45
Viscosity (Brookfield LV)	Pa.s	5-7	5.5
Viscosity (flow cup)	s	pseudo-plastic	pseudo-plastic
Degree of gloss 85°	%	0.7	5
Surface dry	h	2	2
Hard dry	h	7	10
Flow		moderate	moderate

Application:

Application is possible by brush, conventional or airless spray.
Recommended dilution (solvent: white spirit):

brush	0-5 %	0-5 %
air spray	12-15 %	15-20 %
airless spray	ca. 3 %	3-5 %
film thickness	80 μm	60 μm
range of film thickness	50-150 μm	50-120 μm

Suitable for corrosion protection in industrial atmosphere even with occasional dew stress.

Recommended primers: usual primers based on red lead, zinc phosphate or zinc dust.

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Kraft Micaceous Iron Oxide Technical Information FG 4

Typical properties:

Colour		dark grey
Solid matter	% w/w	75
PVC	% v/v	44
Density (base)	g/cm ³	1.79
Viscosity (Brookfield LV, base)	Pa.s	5.5
Viscosity (Flow cup)	s	pseudoplastic
Degree of gloss 85°	%	2.2
Surface dry	h	2
Hard dry	h	6
Flow		pseudoplastic
Potlife	h	more than 6
Mixing ratio	w/w	1:9
Mixing ratio without Shellsol A in the converter	w/w	10:1

Application:

Application is possible by brush, air- or airless spray.

Recommended dilution:

brush	0 %
air spray	ca. 10 %
airless spray	0-3 %
film thickness	150 µm
range of film thickness	60-280 µm

diluent for brush application:

Xylene/n-Butanol/Methoxypropylacetate

diluent for spray application:

Xylene/Methylisobutylketon/Methoxypropylacetate

Suitable as intermediate coat in aggressive atmosphere (chemicals, water). According to German Railway Specification TL 918 300 Nr. 87.

Recommended primer: 2-component primers, zinc ethyl silicate.

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Kraft Micaceous Iron Oxide Technical Information FG 4 – 2

Typical properties:

Colour		dark grey
Solid matter	% w/w	75
PVC	% v/v	44
Density (base)	g/cm ³	1.79
Viscosity (Brookfield LV, base)	Pa.s	5.5
Viscosity (Flow cup)	s	pseudoplastic
Degree of gloss 85°	%	2.2
Surface dry	h	2
Hard dry	h	6
Flow		pseudoplastic
Potlife	h	more than 6
Mixing ratio	w/w	1:9
Mixing ratio without Shellsol A in the converter	w/w	10:1

Application:

Application is possible by brush, air- or airless spray.
Recommended dilution:

brush	0 %
air spray	ca. 10 %
airless spray	0-3 %
film thickness	150 µm
range of film thickness	60-280 µm

diluent for brush application:

Xylene/n-Butanol/Methoxypropylacetate

diluent for spray application:

Xylene/Methylisobutylketon/Methoxypropylacetate

Suitable as intermediate coat in aggressive atmosphere (chemicals, water). According to German Railway Specification TL 918 300 Nr. 87.

Recommended primer: 2-component primers, zinc ethyl silicate.

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Kraft Micaceous Iron Oxide Technical Information FG 5

Typical properties:

Colour		dark grey	grey
Solid matter	% w/w	93	94.5
PVC	% v/v	35	27.5
Density	g/cm ³	1.9	1.9
Viscosity (Brookfield LV)	Pa.s	pseudo-plastic	3.7-4
Viscosity (Flow cup)	s	pseudo-plastic	pseudo-plastic
Degree of gloss 85°C	%	10	36
Surface dry	h	3	7
Hard dry	h	12	14
Flow		low	moderate
Pot life	h	> 5	> 5
Mixing ratio	w/w	90:10	90:10

Application:

Application is possible by brush, air- or airless spray.

Recommended dilution (solvent: n-Butylacetate/Xylene):

brush	0 %	0 %
air spray	5-10 %	5 %
airless spray	0 %	0 %
film thickness	100 µm	80 µm
range of film thickness	50-200 µm	40-150 µm

Suitable for coatings in aggressive atmosphere. Resistant to chemicals (alkalies).

Recommended primer: 2-component primers, zinc ethyl silicate.

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Kraft Micaceous Iron Oxide Technical Information FG 5 – 1

Typical properties:

Colour		dark grey	grey
Solid matter	% w/w	93	94.5
PVC	% v/v	35	27.5
Density	g/cm ³	1.9	1.9
Viscosity (Brookfield LV)	Pa.s	pseudo-plastic	3.7-4
Viscosity (Flow cup)	s	pseudo-plastic	pseudo-plastic
Degree of gloss 85°C	%	10	36
Surface dry	h	3	7
Hard dry	h	12	14
Flow		low	moderate
Pot life	h	> 5	> 5
Mixing ratio	w/w	90:10	90:10

Application:

Application is possible by brush, air- or airless spray.

Recommended dilution (solvent: n-Butylacetate/Xylene):

brush	0 %	0 %
air spray	5-10 %	5 %
airless spray	0 %	0 %
film thickness	100 µm	80 µm
range of film thickness	50-200 µm	40-150 µm

Suitable for coatings in aggressive atmosphere. Resistant to chemicals (alkalies).

Recommended primer: 2-component primers, zinc ethyl silicate.

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Kraft Micaceous Iron Oxide Technical Information FG 6

Typical properties:

Colour		blue
Solid matter	% w/w	93.6 (99.5)
PVC	% v/v	24
Density (base)	g/cm ³	1.65
Viscosity (base, Brookfield LV)	Pa.s	15-25
Viscosity (flow cup)	s	-
Degree of gloss 85°	%	60
Surface dry	h	2
Hard dry	h	10
Flow		very good
Pot life	h	> 6
Mixing ratio	w/w	80:20
Mixing ratio without solvent in the converter	w/w	80:15

Application:

Application is possible by brush, air- and airless spray.
Recommended dilution (solvent: n-Butylacetate/Xylene):

brush	0 %
air spray	ca. 7 %
airless spray	0 %
film thickness	100 μm
range of film thickness	60-200 μm

Suitable for top coats in aggressive atmosphere and coatings with high resistance to chemicals.

Primer: 2-component primer and intermediate coat.

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Evtl. existing protective rights have not been examined!

Kraft Micaceous Iron Oxide Technical Information FG 6 -1

Typical properties:

Colour		blue
Solid matter	% w/w	93.6 (99.5)
PVC	% v/v	24
Density (base)	g/cm ³	1.65
Viscosity (base, Brookfield LV)	Pa.s	15-25
Viscosity (flow cup)	s	-
Degree of gloss 85°	%	60
Surface dry	h	2
Hard dry	h	10
Flow		very good
Pot life	h	> 6
Mixing ratio	w/w	80:20
Mixing ratio without solvent in the converter	w/w	80:15

Application:

Application is possible by brush, air- and airless spray.
Recommended dilution (solvent: n-Butylacetate/Xylene):

brush	0 %
air spray	ca. 7 %
airless spray	0 %
film thickness	100 µm
range of film thickness	60-200 µm

Suitable for top coats in aggressive atmosphere and coatings with high resistance to chemicals.

Primer: 2-component primer and intermediate coat.

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Kraft Micaceous Iron Oxide Technical Information FG 7

Typical properties:

		grey	red
Colour		grey	red
Solid matter	% w/w	64	63
PVC	% v/v	32	29
Density	g/cm ³	1.43	1.47
Viscosity (Brookfield LV)	Pa.s	6.2	8.2
Viscosity (flow cup)	s	-	-
Degree of gloss 85°	%	1.4	1.8
Surface dry	h	0.5	1
Hard dry	h	5	5
Flow		no flow	no flow

Application:

Application is possible by brush, air- or airless spray.

Recommended dilution (solvent: water):

brush	0-10 %	0 %
air spray	ca. 15 %	ca. 10 %
airless spray	0-3 %	0-3 %
film thickness	60 μm (30-110 μm)	60 μm (40-110 μm)

Suitable for steel structures in industrial and maritime atmosphere.

Recommended primers: usual corrosion protection primers based on red lead, zinc phosphate, or zinc rich primers. We can furthermore recommend aqueous primers pigmented with red iron oxide, zinc phosphate and other corrosion inhibiting pigments.

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Kraft Micaceous Iron Oxide Technical Information FG 11

Typical properties:

Colour		dark green
Solid matter	% w/w	76
PVC	% v/v	30
Density	g/cm ³	1.8
Viscosity (Brookfield LV)	Pa.s	1.1
Viscosity (flow cup)	s	65
Degree of gloss 85°	%	10
Surface dry	h	1
Hard dry	h	8
Pot life	h	ca. 6
Mixing ratio	w/w	80:20
Flow		very good

Application:

Application is possible by brush, air- or airless spray.
 Recommended dilution (solvent: Xylene:Methoxypropylacetate = 1:1):

brush	0 %
air spray	ca. 7 %
airless spray	0 %
film thickness	80 µm (40-120 µm)

Suitable for corrosion protection coatings in severe water and weather conditions. Recommended for protective coatings that need to be resistant to solvents, chemicals and mechanical forces.

Recommended primer and intermediate coat: thick film primers and fillers based on epoxy resins.

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Kraft Micaceous Iron Oxide Technical Information FG 12

Typical properties:

		red brown	brown
Colour			
Solid matter	% w/w	64	63
PVC	% v/v	37	27
Density	g/cm ³	1.5	1.4
Viscosity (Brookfield LV)	Pa.s	1.5	1.1
Viscosity (flow cup 4 mm nozzle)	s	ca. 120	ca. 100
Degree of gloss 85°	%	1.5	3.5
Surface dry	h	0.5	0.5
Hard dry	h	5	6
Flow		good	very good

Application:

Application is possible by brush, air- or airless spray.

Recommended dilution (solvent: Xylene:Methoxypropylacetate:n-Butanol = 10:1:1):

brush	0 %	0 %
air spray	10 %	10 %
airless spray	0-3 %	0 %
film thickness	90 µm	70 µm
	(50-100 µm)	(40-100 µm)

Suitable for coating of steel structures under continued immersion conditions (condensed water and under water conditions like off-shore structures, ship hulls and ship constructions etc.). Not resistant to fats, oils and solvents!

Recommended primers: 2-component, PVC-combination and chlorinated rubber based primers as well as ethyl silicates. Beware of lifting upon use of oil or alkyd based primers!

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Kraft Micaceous Iron Oxide Technical Information FG 13

Typical properties:

Colour		grey
Solid matter	% w/w	66
PVC	% v/v	38
Density	g/cm ³	1.45
Viscosity (Brookfield LV) (*)	Pa.s	2.5
Viscosity (flow cup 4 mm nozzle) (*)	s	180
Degree of gloss 85°	%	2.5
Surface dry (**)	h	1
Hard dry (**)	h	8
Flow		good

(*) Viscosity increases due to humidity from the surroundings.

(**) At low humidity curing could last much longer.

Application:

Application is possible by brush, air- or airless spray.

Recommended dilution (solvent: Xylene:Methoxypropylacetate = 2:1)

brush	0-7 %
air spray	10-15 %
airless spray	3-5 %
film thickness	70 µm
range of film thickness	40-120 µm

Suitable for corrosion protection under immersion conditions. For chemical and solvent resistant coatings with high mechanical durability. Watch the short overcoating interval!

Recommended primers: 2-component primers, ethyl silicates, primers based on moisture curing polyurethanes.

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Kraft Micaceous Iron Oxide Technical Information FG 13 A

Typical properties:

Colour		yellowgreen
Solid matter	% w/w	74
PVC	% v/v	42
Density	g/cm ³	1.59
Viscosity (Brookfield LV) (*)	Pa.s	2.8
Viscosity (flow cup 4 mm nozzle) (*)	s	200
Degree of gloss 85°	%	2.3
Surface dry (**)	h	1
Hard dry (**)	h	8
Flow		good

(*) Viscosity increases due to humidity content of the raw materials
 (**) At low humidity curing could last much longer.

Application:

Application is possible by brush, air- or airless spray.
 Recommended dilution (solvent: Xylene:Methoxypropylacetate = 2:1):

brush	0-10 %
air spray	15-20 %
airless spray	3-5 %
film thickness	80 µm
range of film thickness	40-150 µm

Suitable for corrosion protection under immersion conditions. For chemical and solvent resistant coatings with high mechanical durability. Watch the short overcoating interval!

Recommended primers: 2-component primers, ethyl silikates, primers based on moisture curing polyurethanes.

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Kraft Micaceous Iron Oxide Technical Information FG 14

Typical properties:

Colour		blue
Solid matter	% w/w	88
PVC	% v/v	35
Density	g/cm ³	1.75
Viscosity (Brookfield LV, base)	Pa.s	1.6 (*)
Viscosity (flow cup, 4 mm, base)	s	120 (*)
Degree of gloss 85°	%	3
Surface dry	h	1
Hard dry	h	8
Pot life	h	> 6
Mixing ratio	Gew.-Tl.	9:1
Flow		very good

(*) Values for Macrynal SM 510 n. With SM 510 viscosity is somewhat higher.

Application:

Application is possible by brush, air- or airless spray.
 Recommended dilution (solvent: Shellsol A or Xylene:Butylacetate or Methoxypropylacetate = 1:1):

brush	0-3 %
air spray	10 %
airless spray	0-3 %
film thickness	70 µm
range of film thickness	40-120 µm

Suitable for corrosion protection coatings with very good weather resistance, and very good colour and gloss retention.

Recommended primers: thick film primers and fillers with epoxy resins as binders.

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Kraft Micaceous Iron Oxide Technical Information FG 15

Typical properties:

		light grey	blue grey
Colour			
Solid matter	% w/w	69	71
PVC	% v/v	33	32
Density	g/cm ³	1.45	1.49
Viscosity (Brookfield LV)	Pa.s	14	5.2-8.5
Viscosity (flow cup)	s	pseudo-plastic	pseudo-plastic
Degree of gloss 85°	%	3.5	1.3
Surface dry	h	1	0.5
Hard dry	h	4	5
Flow		no flow	no flow

Application:

Application is possible by brush, air- or airless spray.
Recommended dilution (solvent: water):

brush	0-5 %	0-5 %
air spray	10-15 %	ca. 10 %
airless spray	0-3 %	0-3 %
film thickness	70 μm	70 μm
range of film thickness	50-120 μm	50-100 μm

Suitable for structural steelwork in industrial or maritime atmosphere.

Recommended primers: usual corrosion protection primers based on red lead, zinc phosphate, or zinc dust. We can also recommend water dilutable systems with red iron oxide, zinc phosphate or other corrosion inhibiting pigments as primers.

This information should be of help for the paint laboratory. It is based on our experience and tests, but we can not accept any liability regarding the suitability or use of any product for any particular purpose and is subject to further development. Trade names given here are examples. It does not mean that they are better than other commercial products not mentioned here.

Evtl. existing protective rights have not been examined!

Kraft Micaceous Iron Oxide Technical Information FG 15 – 2

Typical properties:

Colour		brown	red
Solid matter	% w/w	75	75
PVC	% v/v	45	29
Density	g/cm ³	-	-
Viscosity (Brookfield LV)	Pa.s	-	-
Viscosity (flow cup)	s	-	-
Degree of gloss 85°	%	-	-
Surface dry	h	0.5	0.5
Hard dry	h	3	3
Flow		moderate	moderate

Application:

Application is possible by brush, air- or airless spray.
Recommended dilution (solvent: water):

brush	0-10 %	0-5 %
air spray	ca. 20 %	20 %
airless spray	5 %	ca. 7 %
film thickness	70 µm	50 µm
range of film thickness	40-90 µm	30-70 µm

Suitable for all kinds of structural steelwork.

Recommended primers: usual corrosion protection primers based on alkyd resins, dispersion.

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Evtl. existing protective rights have not been examined!

Kraft Micaceous Iron Oxide Technical Information FG 17 – 1

Typical properties:

Colour		aluminium
Solid matter	% w/w	64
PVC	% v/v	35
Density	g/cm ³	1.45
Viscosity (Brookfield LV)	Pa.s	0.18
Viscosity (flow cup)	s	15
Degree of gloss 85°	%	1
Surface dry	h	0.25
Hard dry (*)	h	-
Temperature stability on		
Steel, blasted	°C	600-650
Flow		moderate

(*) Curing by way of stoving (1 h at 200°C)

Application:

Application is possible by brush, air- or airless spray.
Recommended dilution (solvent: aromates):

brush	0 %
air spray	0 %
airless spray	0 %
film thickness	25 µm

Suitable for heatresistant anticorrosion coatings esp. for application above 300°C. The resin stays sticky if the temperature is around room-temperature, it is not suitable for high gloss systems. After stoving the coating becomes very hard. No blistering under all forms of stoving-conditions.
System: 2-3 coats

Recommended primers: if necessary (long term corrosion protection, water resistance) zinc-ethylene silicate. Long-term use is restricted to 500°C and pH 5-9 for chemicals.

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Evtl. existing protective rights have not been examined!

Kraft Micaceous Iron Oxide Technical Information FG 22

Micaceous iron oxide paint based on bitumen

Starting formulation:

	weight %
(1) Blown bitumen	
(2) White spirit	19.0
(3) Xylene	6.0
(4) Natural asphalt 40 % in xylene	6.0
(5) Montmorillonite	3.8
(6) Fumed silica	2.3
(7) Talc	1.2
(8) Mica, 25 µm	5.5
(9) Red iron oxide	11.0
(10) Micaceous iron oxide MIOX SG	3.7
(11) Ketone resin	33.0
	<u>8.5</u>
	100.0

- (1) Mineraloil bitumen B 90/10, soft-point ring and ball: 85-95°C, penetration at 25°C: 5-15 mm⁻¹)
- (4) Gilsol 40X (American Gilsonite Comp., USA 84133 Salt Lake City/Utah; representatives: Worlée Chemie, D-2000 Hamburg 60)
- (5) Bentone 34 10 % in xylene (NL Chemicals UK Ltd., GB-Wilmslow)
- (6) HDK H 15 (Wacker Chemie, D-8000 Munich 22)
- (7) Talc H 60 (Naintsch, A-8011 Graz)
- (8) Plastorit 00 (Naintsch, A-8011 Graz)
- (9) Bayferrox 130 BM (Bayer AG, D-5090 Leverkusen)
- (10) MIOX SG (Kärntner Montanindustrie GmbH., A-9010 Klagenfurt)
- (11) Laropal K80 50 % in xylene (BASF AG, D-6700 Ludwigshafen)

Manufacturing instructions:

Dissolve hot bitumen in the solvent mixture, after cooling stir in (4) to (6) successively. Add pigments and fillers and disperse in a dissolver for about 15 min at a peripheral speed of about 250 m/min. Stir in Laropal solution after cooling. If needed replace evaporated solvent.

Kraft Micaceous Iron Oxide Technical Information FG 22

Typical properties:

Colour		darkbrown
Solid matter	% w/w	79.5
PVC	% v/v	-
Density	g/cm ³	1.6
Viscosity (Brookfield LV)	Pa.s	3
Viscosity (flow cup 4 mm)	s	thixotrope
Degree of gloss 85°	%	10-13
Surface dry	h	1
Hard dry	h	8
Flow		good - very good

Application:

Application is possible by way of brush- and roller coating or airless spraying.

We recommend the following thinners (solvent: xylene:white spirit = 2:1):

brush coating	0-15 %
airless spray	0-4 %
film thickness	120 µm
range of film thickness	100-170 µm

Suitable for underwater coatings. Use phenol-free solvents when contact with drinkingwater is to be foreseen.

Recommended primers: zinc rich epoxy primers, inorganic zinc primers.

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Evtl. existing protective rights have not been examined!

Kraft Micaceous Iron Oxide Technical Information FG 23

Manufacturing instructions:

Stir 10) into 9) and fill the hardener solution into a tin and close the lid quickly. Avoid contact with air moisture as far as possible.

Mixing ratio:

Component 1 : Component 2 = 10 : 1 (by weight).

Thinner:

Shell Sol A with Dowanol PMA in a ratio of 7 : 3 (by weight).

Typical properties:

Colour		grey
Solid matter	% m/m	70.5
PVC	% v/v	30
Binder	% m/m	27.2
Pigment	% m/m	43.3
VOC	% m/m	29.5
Viscosity (Krebs)	KU	80 - 90
Pot life	h	> 8
Surface dry	h	ca. 1
Hard dry	h	ca. 8

Application:

- brush, air spray, airless spray
- film thickness (dry): 75 - 100 μ m
- dilution, where necessary: Shell Sol A with Dowanol PMA

Field of application:

Suitable for corrosion protection under severe conditions. Recommended for topcoats on epoxy or polyurethane intermediate coats.

Kraft Micaceous Iron Oxide Technical Information FG 27

Component 2	weight-%
11) Euredur 424	<u>100.00</u>

Mixing ratio:

Component 1 : Component 2 = 4 : 1 (by weight).

Thinner:

Shell Sol A with Dowanol PM in a ratio of 6 : 4 (by weight).

Typical properties:

Colour		beige-red
Solid matter	% m/m	68
PVC	% v/v	32
Binder	% m/m	24
Pigment	% m/m	44
VOC	% m/m	32
Viscosity (Krebs)	KU	90 - 100
Pot life	h	8
Surface dry	h	2
Hard dry	h	6

Application:

- brush, air spray, airless spray
- film thickness (dry): 75 - 100 μm

Field of application:

Suitable for corrosion protection under severe conditions and aggressive environmental conditions such as industrial and marine atmospheres.

Kraft Micaceous Iron Oxide Technical Information FG 29

Component 2	weight-%
11) Euredur 424	<u>100.00</u>

Mixing ratio:

Component 1 : Component 2 = 4 : 1 (by weight).

Thinner:

Shell Sol A with Dowanol PM in a ratio of 6 : 4 (by weight).

Typical properties:

Colour		silver-green
Solid matter	% m/m	67
PVC	% v/v	30
Binder	% m/m	24
Pigment	% m/m	43
VOC	% m/m	33
Viscosity (Krebs)	KU	90 - 100
Pot life	h	8
Surface dry	h	2
Hard dry	h	6

Application:

- brush, air spray, airless spray
- film thickness (dry): 75 - 100 μm

Field of application:

Suitable for corrosion protection under severe conditions and aggressive environmental conditions such as industrial and marine atmospheres.

Note: Epoxy coatings are subject to chalking on weathering due to their sensitivity to UV-rays.

Recommended intermediate coat: 2-pack-epoxy-MIOX