Quaker Color

IRF Series

Resin-free, water-based, low-VOC, IR reflective and IR transparent pigmented dispersions. High pigment loading, exterior and interior applications. Compatible with most waterborne coatings and sealant formulations. If formulated correctly, these pigment dispersions help reduce coated surface temperatures in direct and indirect sun light, for industrial and residential applications.

- **Full line of IR reflective and IR transparent dispersions**
- **Prevents warping for exterior applications exposed to sunlight**
- **APE-free and low-VOC.**

Technology

QUAKER COLOR™ IRF Series dispersions are surfactant based. They have been developed with a high-performance dispersing package designed for industrial coatings. They are glycol-free and as such will have minimal influence on coating properties like gloss, hardness, moisture resistance, and rheology.

Pigmentation

The pigments used in the IRF Series were specifically selected for their IR reflectiveness or for the fact that they are transparent to IR light (they would require a white coating underneath). These pigments have excellent chemical resistance and exterior stability. The inorganic pigments are stable at high temperatures.

Volatiles

The QUAKER COLOR™ IRF Series are low-VOC (<25g/l) waterborne dispersions. A small amount of monoethanolamine is added for pH adjustment.This results in better coating property retention than using caustic potash which is typically used in low-VOC waterborne dispersions. It does contribute to the total VOC.

Applications

QUAKER COLOR™ can be used to reduce the temperature of coated surfaces in sunlight. This is especially important for coating plastics that tend to warp at increased temperatures.

Compatibility

The IRF Series dispersions are compatible in most waterborne and water-reducible coating types like acrylic, styrene acrylic, alkyd emulsion, PUD urethane, vinyl acrylic, epoxy, 2k urethane.

Use

IRF Series colorants are stir-in grades. They should be added under mild agitation. Store at room temperature; prevent from freezing.

Quaker Color is happy to develop custom colors or resin systems. Please contact your local representative concerning minimum quantities and turn-around times.

QUAKER COLOR™ IRF Series

IR- Reflective ■ Waterborne ■ Low-VOC ■ Resin-Free

Code	Description	P.I. Number	Light Fastness					Chemical Fastness								Composition by weight [%]			VOC	TSR%
			WPG [LB./Gal.]	Density [g/ml]	Masstone	Tint	Temperature Resistance [°C]	Acid	Alkaline	Butanol	Butyl Glycol	Butyl Acetate	MEK	Mineral Spirits	Xylene	Pigment Solids	Vehicle Solids	Volatiles	[g/l]	Total Solar Reflectance
IRF-BK-5202	IR Black	IR Black	19.1	2.29	8	8	300	5	5	5	5	5	5	5	5	69.0	71.0	29.0	20	25%
IRF-BK-5203	IR Black	IR Black	24.7	2.96	8	8	300	5	5	5	5	5	5	5	5	77.0	78.0	22.0	22	23%
IRF-B28-5216	Bright Blue	PB 28	16.5	1.98	8	8	600	5	5	5	5	5	5	5	5	66.0	68.8	31.2	19	29%
IRF-BK-2041	IR Black	PBk 31	9.17	1.10	8	7-8	200	5	5	5	5	5	5	5	5	30.0	36.9	63.1	10	36%
IRF-BK31-110B	IR Black	PBk 31	9.18	1.10	8	7-8	200	5	5	5	5	5	5	5	5	30.0	36.9	63.1	19	41%
IRF-BK31-5201	IR Black	PBk 31	9.02	1.08	8	7-8	200	5	5	5	5	5	5	5	5	25.0	31.0	69.0	18	41%
IRF-BR24-5205	Golden Yellow	PBr 24	17.1	2.05	8	8	600	5	5	5	5	5	5	5	5	66.0	69.5	30.5	19	62%
IRF-G17-5209	High IR Green	PG 17	18.8	2.25	8	8	900	5	5	5	5	5	5	5	5	68.0	72.5	27.5	16	40%
IRF-G17-5225	IR Black	PG 17	18.7	2.24	8	8	900	5	5	5	5	5	5	5	5	68.0	70.3	29.7	19	24%
IRF-G26-5210	Cobalt Green IR	PG 26	18.8	2.25	8	8	600	5	5	5	5	5	5	5	5	26.0	73.0	27.0	17	28%
IRF-R101-5207	IR Red	PR 101	15.8	1.89	8	7-8	200	5	5	5	5	5	5	5	5	59.0	61.0	39.0	21	39%
IRF-Y53-5219	IR Yellow	PY 53	11.8	1.41	8	8	600	5	5	5	5	5	5	5	5	38.0	42.6	57.4	10	66%

IRF-BK-5202
IR Black

IRF-BK-5203
IR Black

IRF-B28-5216
Bright Blue

IRF-BK-2041
IR Black

IRF-BK31-110B
IR Black

IRF-BK31-5201
IR Black

IRF-BR24-5205
Golden Yellow

IRF-G17-5209
High IR Green

IRF-G17-5225
IR Black

IRF-G26-5210
Cobalt Green IR

IRF-R101-5207
IR Red

IRF-Y53-5219
IR Yellow

Lightfastness is on a scale from 1-8 with 1 being worst and 8 being best
Chemical fastness is on a scale from 1-5 with 1 worst and 5 best

* VOC is based on calculations. Traces of VOC might be present in “Zero”- VOC dispersions

Quaker Color manufactures all its products under carefully controlled conditions to meet rigid specifications. The values given in this publication are typical values intended as guidelines for the use of the products, they are not specifications. It is the user's responsibility to thoroughly test the product in their particular application to determine its performance, efficacy and safety. sShould you require the actual specifications currently enforced on specific products contact your Quaker Color representative for the appropriate information.

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