

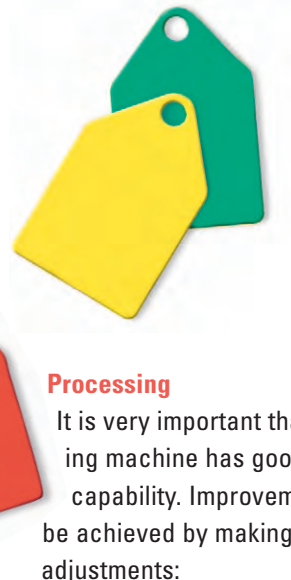
Masterbatches



Exactly your chemistry.

Consistently Beautiful
**OMNICOLOR® Multipurpose
Masterbatches**

OMNICOLOR® Multipurpose Color Concentrates



The industry's first effective line of multipurpose color concentrates, OMNICOLOR offers excellent color performance across the broadest range of polymers, while also helping to minimize costs.

OMNICOLOR delivers consistently brilliant batch-to-batch color with exceptional reliability and quality. Its low usage ratio (100:1), low minimum order (25 lbs., 5 kg), and pelletized form for easy handling and storage make it a versatile and cost-effective choice for injection molders.

Available in 197 stock and standard colors, OMNICOLOR concentrates are suitable for use with over 25 different polymers including PVC, nylon and ABS. They are compatible with most common additives, including UV stabilizers, antistats and slip agents. All OMNICOLOR concentrates are heavy-metal- and cadmium-free.

OMNICOLOR color concentrates are based on a multipurpose compatible carrier system. These concentrates

are suitable for use with a wide range of polymers at the addition rates recommended in the table below:

Recommended Addition Rates

Polyethylene	1%	SAN	1%
Polypropylene	1%	ABS	1-3%
GP Polystyrene	1%	PVC	1-3%
HI Polystyrene	1-2%	Polycarbonate	1%
Acrylics (Opaque)	1%	Thermoplastic	1-3%
PBT Polyester	1%	Rubber	
PET Polyester	1%	Alloys & Blends	1-3%
Polyurethane	1-2%	EVA	1%
Polyamide (Nylon)	1%	Filled Polymers	1-3%
Acetal	1%		

Concentrate Selection

OMNICOLOR concentrates are generally selected because of their versatility where a wide range of polymers are processed and their availability for sale in small quantities.

Utilization of OMNICOLOR Blending

Thorough premixing of OMNICOLOR and polymer is required to obtain consistency of color throughout the production run. This can be achieved by tumble mixing or by the use of concentrate metering devices.

Processing

It is very important that the processing machine has good plasticizing capability. Improvements can often be achieved by making the following adjustments:

1. Increasing the back pressure
2. Reducing the screw speed
3. Raising the temperature in the middle zone of the barrel
4. Cooling the feed zone of the barrel to prevent premature melting of the the concentrate

Thermal Stability

OMNICOLOR processing temperatures pertain to the colorant system only. The carrier system also has a thermal ceiling and is dependent on both time and temperature. Care should be used when processing OMNICOLOR where melt temperatures may exceed 600°F.

General Information on OMNICOLOR Carrier

The term multipurpose concentrate implies that the concentrate carrier is compatible with most polymers. The carrier resin could cause performance problems in a few polymers. Therefore, OMNICOLOR should not be used in:

1. Cellulosic polymers
2. Transparent acrylic colors

Pigment Compatibility

The OMNICOLOR range has been formulated with high quality heavy-metal-free pigments that will perform well in a wide range of polymers under most processing conditions.

Food and Toy Regulations

OMNICOLOR masterbatches are available for food contact and toy applications, although the stock range is not specifically formulated for FDA compliance. Customers must check with their supplier before using any OMNICOLOR masterbatch for any food contact applications. OMNICOLOR masterbatches are not suitable for primary pharmaceutical, cosmetic or medical applications. Detailed statements relating to compliance with EU and US legislation and standards are available upon request from productsafetyuk@clariant.com.

Process Compatibility

OMNICOLOR masterbatches can be used for injection molding, blow molding, profile and sheet extrusion and will withstand the drying temperatures of most polymers that require drying before processing, such as ABS and nylons. For polymer drying in excess of 225°F (100°C), add the masterbatch after the drying process or alternatively contact our technical staff for availability of high-temperature grades.



Lightfastness

This is measured on the Blue Wool Scale (BWS) from a minimum of 1 to a maximum of 8. OMNICOLOR offers a broad spectrum of colors with lightfastness ratings to suit most applications. OMNICOLOR concentrates do not contain UV stabilizers; outdoor applications must be reviewed on a case-by-case basis. Please check with our technical department when colorant is required for a light-specific or critical application.



Weatherability

This refers to loss of color and outdoor exposure due to elemental action. Good lightfastness does not always indicate good weatherability. If weatherability is of prime importance, this should be specified.

Color Shade and Opacity

All pigments vary in color strength and opacity. The formulations used to create OMNICOLOR combine the high tinting strength of organic pigments with the opacity of inorganics. The hiding power of the formulations does differ and should be tested for in all opaque and filled polymers before starting production.

Flame Retardant Polymers

It is possible to use OMNICOLOR in Flame Retardant materials, but due to their high additive content only a very limited range of colors such as gray or beige is possible. The addition of pigment and carrier could also affect the UL rating. Therefore, subsequent flame testing may be necessary when using OMNICOLOR in flame retardant polymers.

OMNICOLOR® – Ordering Information, Troubleshooting and Cost Calculation

Troubleshooting OMNICOLOR

SYMPTOM	CAUSE	REMEDY
1. Color variation shot to shot.	Poor OMNICOLOR preblending. Pigment has insufficient thermal stability.	More thorough blending. Ensure correct machine temperature control.
2. Screw slip.	Premature melting of OMNICOLOR. Excessive addition rate.	Reduce heat in feed zone. Check addition rate and reduce if necessary.
3. Overall good distributive mixing with streaks or dots of another color.	Poor pigment dispersion in concentrate.	Return concentrate for replacement.
4. Black streaks or splotches.	Degraded polymer in barrel.	Clean screw and barrel.
5. Poor distributive mixing (streaking).	Insufficient plastification.	See processing instructions.
6. Loss of color.	Pigment has insufficient thermal stability.	Change to more heat stable concentrate. Ensure correct machine temperature control.

* OMNICOLOR does not contain UV stabilizers or fluorocarbons. Effects of gamma ray sterilization on OMNICOLOR have not been tested.
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How to Calculate Your Coloring Costs

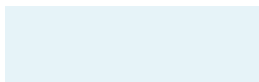
$$\frac{\text{Cost/lb. of Concentrate} - \text{Cost/lb. of Resin}}{\text{Let-Down Ratio} + 1} = \text{Coloring Cost}$$

In the US and UK, OMNICOLOR stock colors are available for next-day delivery. The remaining standard colors are available for delivery within 5 to 7 working days. Smaller quantities may be available: call +1 888 621 1282 in the US and +44 1942 296 200 in the UK.



NOTICE:

The term *multipurpose color concentrate* signifies that the concentrate is based on a carrier material that is compatible with a wide range of thermoplastics. Product is supplied on the understanding that it will be assessed for suitability of application under local conditions in the intended use. The information given herein and otherwise supplied to users is based on our current knowledge and experience. However, due to many factors beyond our knowledge and control that may affect processing and application, we give this information without obligation or liability of any kind whatsoever. Colors shown are simulations only. Actual color may vary depending on specific resin and processing conditions.



Mistral
UK: OM55484
US: Not Available



Marine Blue
UK: OM66088
US: UN66088



Dove Grey
UK: OM7378 **Stock**
US: UN7378



Chocolate Brown
UK: OM8004 **Stock**
US: UN8004



Honey Beige
UK: OM88723 **Stock**
US: UN88723



Lavender
UK: OM55497 **Stock**
US: Not Available



~~Lime Green~~
UK: OM66000
US: UN66000



Soft Grey
UK: OM7759 **Stock**
US: UN7759



Terracotta
UK: OM8005 **Stock**
US: UN8005



Chestnut Brown
UK: OM88726
US: UN88726



Bluebell
UK: OM55500
US: Not Available



Olive Green
UK: OM66100
US: UN66100



Graphite
UK: OM7994 **Stock**
US: UN7994



Light Brown
UK: OM8018 **Stock**
US: UN8018



Beige
UK: OM88729 **Stock**
US: UN88729



Lilac
UK: OM55502
US: Not Available



Pod Green
UK: OM66159
US: Not Available



~~Moonstone~~
UK: OM7990
US: UN7990



Mushroom
UK: OM8021
US: UN8021



Fudge
UK: OM88820
US: Not Available



Aqua
UK: OM6037
US: Not Available



Ocean Green
UK: OM66161
US: Not Available



Pebble
UK: OM7999
US: UN7999



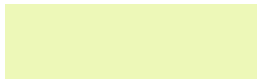
Mid Brown
UK: OM8029 **Stock**
US: UN8029



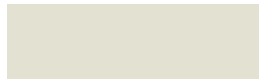
Demerara
UK: OM88833 **Stock**
US: Not Available



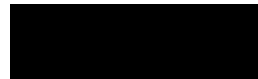
Alpine Green
UK: OM6969 **Stock**
US: UN6969



Dewdrop
UK: OM66301
US: Not Available



Cloud Grey
UK: OM77000 **Stock**
US: UN77000



Dark Brown
UK: OM8142 **Stock**
US: UN8142



Sandstone
UK: OM88942
US: Not Available



Spearmint Green
UK: OM6985 **Stock**
US: UN6985



Grass Green
UK: OM66303
US: Not Available



Mink
UK: OM77007
US: UN77007



Mahogany
UK: OM8332 **Stock**
US: UN8332



Deep Black
UK: OM0055 **Stock**
US: UN0055



Leaf Green
UK: OM6994 **Stock**
US: UN6994



Lettuce Green
UK: OM66306
US: Not Available



Dusk
UK: OM77013
US: UN77013



Rosewood
UK: OM8399
US: UN8399



Ebony
UK: OM0086
US: UN0086



Fern Green
UK: OM66070 **Stock**
US: UN66070



Apple Green
UK: OM66307
US: Not Available



Putty
UK: OM77140
US: Not Available



Toffee
UK: OM88721
US: UN88721



Onyx
UK: OM0093 **Stock**
US: Not Available



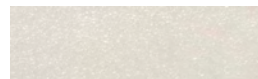
Springtime
UK: OM66072
US: UN66072



Light Grey
UK: OM7002 **Stock**
US: UN7002



Storm Grey
UK: OM77142 **Stock**
US: Not Available



Pearl White
UK: OM0174
US: Not Available



Azure Blue
UK: OM55483
US: Not Available



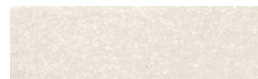
Racing Green
UK: OM66075 **Stock**
US: UN66075



Dark Grey
UK: OM7020 **Stock**
US: UN7020



Vapour
UK: OM77326
US: Not Available



Satin Pearl
UK: OM0448
US: Not Available



~~Azotic Pearl~~
UK: OM55495
US: Not Available



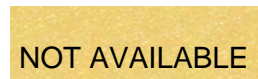
Fresh Green
UK: OM66083 **Stock**
US: UN66083



Ash Grey
UK: OM7021 **Stock**
US: UN7021



Pigeon
UK: OM77327
US: Not Available



~~Straw Pearl~~
UK: OM1690
US: Not Available



~~Mint Pearl~~
UK: OM66207
US: Not Available



Sage Green
UK: OM66087 **Stock**
US: UN66087



Mid Grey
UK: OM7053 **Stock**
US: UN7053



Shark
UK: OM77330
US: Not Available



Shrimp Pink
UK: OM33051
US: Not Available

PEARLESSENTS

PEARLESSENTS

METALLICS	METALLICS	METALLICS	FLUORESCENTS	FLUORESCENTS
 Gold UK: OM0541 US: UN0541	 Copper UK: OM0567 US: UN0567	 Silver UK: OM0701 Stock US: UN0701	 Fluorescent Yellow UK: OM1268 US: UN1268	 Fluorescent Pink UK: OM3752 US: UN3752
 Aztec Gold UK: OM0548 Stock US: UN0548	 NOT AVAILABLE	 Pewter UK: OM0739 US: UN0739	 Fluorescent Orange UK: OM2266 US: Not Available	 Fluorescent Green UK: OM6941 US: UN6941
 Value White UK: OM0038 Stock US: Not Available	 Inca Gold UK: OM0053 Stock US: Not Available	 NOT AVAILABLE	 Frost Bite UK: OM55564 US: Not Available	 Bottle Green UK: OM66302 Stock US: Not Available
 NOT AVAILABLE	 Sparkle UK: OM0797TR US: Not Available	 Pink Sparkle UK: OM33100TR US: Not Available	 Winter Wind UK: OM55565 US: Not Available	 Arctic Moss UK: OM66344 US: Not Available
 Stone Effect UK: OM0248 US: Not Available	 Value Yellow UK: OM1339 Stock US: Not Available	 Value Red UK: OM33111 US: Not Available	 Mirage UK: OM55566 US: Not Available	 NOT AVAILABLE
 NOT AVAILABLE	 Value Blue UK: OM5972 US: Not Available	 Soft Lilac UK: OM55559 US: Not Available	 Purple Silk UK: OM55567 US: Not Available	 Value Green UK: OM66380 Stock US: Not Available
 NOT AVAILABLE	 Odyssey UK: OM9074 Stock US: Not Available	 Atlantic Pearl UK: OM55561 US: Not Available	 Blue Sparkle UK: OM55666TR US: Not Available	 Value Grey UK: OM77450 US: Not Available
 NOT AVAILABLE	 NOT AVAILABLE	 Midnight Satin UK: OM55563 US: Not Available	 Violet Sparkle UK: OM55700TR US: Not Available	
 NOT AVAILABLE	 NOT AVAILABLE	 Claret UK: OM4217HT US: Not Available	 Forest Green UK: OM66294HT Stock US: Not Available	
 NOT AVAILABLE	 Hornet UK: OM1829HT Stock US: Not Available	 Lava UK: OM33049HT US: Not Available	 Astro UK: OM66295HT Stock US: Not Available	
 Diamond White UK: OM0279HT Stock US: Not Available	 Fresh Orange UK: OM2264HT Stock US: Not Available	 Poinsettia UK: OM33050HT US: Not Available	 Dolphin UK: OM77323HT US: Not Available	
 Cumulus UK: OM0447HT US: Not Available	 Deep Red UK: OM33930HT Stock US: Not Available	 Mid Green UK: OM66148HT Stock US: Not Available	 Slate UK: OM77324HT US: Not Available	
 Melon Yellow UK: OM1739HT Stock US: Not Available	 Sunset UK: OM33940HT Stock US: Not Available			
 Pineapple UK: OM1740HT US: Not Available				

Clariant also offers ten transparent colors, as well as three transparent edge glow effects. See the processing chart in this publication for a complete listing of these colors and recommended polymers/maximum processing temperatures. For free color chip samples, please contact your Clariant representative.

A Partner in Innovation

A global color technology leader, Clariant offers the industry's broadest range of high-performance masterbatches for plastics, including OMNIColor® universal color masterbatches; REMAFIN® masterbatches for polyolefins; RENOL® masterbatches for engineering resins, styrenics and PVC; CESA® additive masterbatches; HYDROCEROL® chemical foaming and nucleating agents; and ENIGMA™ special effects. These products are widely specified in the packaging, automotive, durable goods,

housewares, office automation, electrical, and other major industries.

Clariant's in-depth market knowledge, formulation expertise and customer commitment are recognized worldwide. A global network of ISO 9000 facilities incorporates the most demanding manufacturing standards to ensure the quality and consistency of Clariant masterbatches wherever they are used.

Clariant also continues to drive new dimensions in color creativity. Through its global ColorWorks™ design services network, inspiration and technology meld together, helping customers strengthen brand recognition, enhance new product development and accelerate speed to market.

Additional information about Clariant products and technical support is available from all our global facilities. Start a dialog with the experts at the Clariant location nearest you.

UK

Clariant Masterbatches UK Ltd.
Haslemere Industrial Estate
Bryn
Wigan, Lancashire WN4 0BZ
Tel: +44 1942 296 200
Fax: +44 800 783 7751

US

Clariant Masterbatches
85 Industrial Drive
Holden, MA 01520
Tel: +1 888 621 1282 (in US)
Tel: +1 508 829 6321
Fax: +1 508 829 7887

www.clariant.masterbatches.com

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