



Exactly your chemistry.

*Ready-made Color Solutions*  
**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 a wide range of 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, anti-stats 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, Toy and Critical Application Regulations**

OMNIColor masterbatches are not suitable for food, primary pharmaceutical, cosmetic, toy, or medical applications or other applications that require a US FDA letter of compliance. Detailed statements relating to compliance with EU and US legislation and standards are available upon request:

Denise M. Richardson  
Product Stewardship/Environmental  
Manager  
Clariant Corporation  
Business Unit Masterbatches  
926 Elliot Road, Albion, MI 49224, USA  
Tel: +1 517 629 7703  
Email: denise.richardson@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**

OMNIColor masterbatches are not suitable for flame retardant applications.

# 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.

## 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, 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.



### 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.

# OMNICOLOR Processing Temperatures

RECOMMENDED MAXIMUM PROCESSING TEMPERATURES FOR OMNICOLOR IN SELECTED POLYMERS IN °C									
COLOR NO.	COLOR	PVC	PE/PP/PUR	PS	ABS	ACETAL	PBT	NYLON	PC/PES
UN0001	White	200+	280+	260+	280+	200+	300+	280+	300+
UN0005	Bright White	200+	260	260+	260	200+	300+	NS	300+
UN0330	Polar White	200+	280+	260+	280+	200+	300+	280+	300+
UN0332	Coconut	200+	280+	260+	280+	200+	300+	280+	300+
UN1275	Magnolia	**200+	280+	260+	280+	200+	300+	280+	300+
UN1293	Vanilla	**200+	280+	260+	280+	200+	300+	280+	300+
UN1625	Sunflower Yellow	200+	280	260	260	200+	280	NS	280
UN1637	Daffodil Yellow	200	240	220	NS	NS	NS	NS	NS
UN1690	Citrus #	*200+	NS	260	250	NS	280+	NS	280+
UN1693	Banana	*200+	NS	280+	280+	NS	280+	NS	280+
UN1696	Jasmine	200+	280	260	260	200+	280+	NS	280+
UN1700	Canary Yellow	200+	280	260	260	200+	280	NS	280
UN1702	Marigold #	*200+	NS	260+	260+	NS	300	NS	300
UN1704	Ivory	**200+	280+	260+	280+	200+	300+	280+	300+
UN1707	Cream	200+	280+	260+	260+	200+	300+	280+	300+
UN2239	Seville Orange	200+	280	260	260	200+	NS	NS	NS
UN2243	Mandarin Orange	200	240	220	NS	NS	NS	NS	NS
UN2250	Pumpkin	200+	280	260	240	200+	NS	NS	NS
UN2252	Nectarine #	*200+	NS	280+	280+	NS	300	NS	300
UN3223	Strawberry Red	200+	280	260	260	200+	NS	NS	NS
UN3364	Rose Pink	200+	280	260	260	200+	NS	NS	NS
UN3513	Flesh Pink	**200+	280	260	260	200+	NS	NS	NS
UN3788	Cherry Red	200+	280	260	260	200+	NS	NS	NS
UN3801	Pastel Pink	200+	280	260	260	200+	NS	NS	NS
UN3820	Flame Red	*200	NS	280+	280+	NS	280+	280+	280+
UN3849	Lobster Red	200	260	220	NS	NS	NS	NS	NS
UN3850	Tomato Red	200+	280	260	260	200+	280	NS	280
UN3853	Fuchsia	200	260	220	NS	NS	NS	NS	NS
UN3856	Admiral Red #	*200+	NS	260+	260+	NS	300	NS	300
UN3861	Cardinal Red	200+	280	260	260	200+	280	NS	280
UN3864	Fire Engine Red #	*200+	NS	260+	260	NS	300	NS	300
UN3872	Rocket Red	*200	NS	280+	280+	280+	280+	NS	280+
UN3879	Raspberry	200	260	220	NS	NS	NS	NS	NS
UN4043	Burgundy	200	230	200	NS	200	NS	NS	NS
UN4204	Mulberry	200+	280	260	260	200	280	NS	280
UN4211	Aubergine #	*200+	NS	260	260	NS	280	NS	280
UN5001	Sky Blue	200+	260	260+	280	200+	280	280	280
UN5009	Powder Blue	200+	280+	260+	280+	200+	300	280+	300
UN5011	Mid Blue	200+	280+	260+	280+	200+	300	280+	300
UN5027	Royal Blue	200+	240	220	NS	200	NS	NS	NS
UN5034	Pale Blue	200+	280+	260+	280+	200+	300	280+	300
UN5065	Navy Blue	200+	280+	260+	280+	200+	300	280+	300
UN5179	Ultra Blue	200+	280+	260+	280+	200+	300+	280+	300+
UN5485	Pacific Blue	200+	280+	260+	280+	200+	300	280+	300
UN5982	Baby Blue	200+	260+	260+	280+	200+	300	280+	300
UN55094	Purple	200+	260	240	240	200+	NS	NS	NS
UN55157	Ice Blue	200+	280+	260+	280+	200+	300	280+	300
UN55160	Midnight Blue #	*200+	NS	260	260	NS	300	NS	300
UN55162	Cornflower Blue	200+	280+	260+	280+	200+	300	280+	300
UN55171	Baltic Blue	200+	260+	240+	240+	200+	280+	NS	280+

## TEMPERATURE CONVERSION TABLE

°C	200	220	240	260	280	300
°F	392	428	464	500	536	572

RECOMMENDED MAXIMUM PROCESSING TEMPERATURES FOR OMNICOLOR IN SELECTED POLYMERS IN °C									
COLOR NO.	COLOR	PVC	PE/PP/PUR	PS	ABS	ACETAL	PBT	NYLON	PC/PES
UN6969	Alpine Green	200+	280	260	260	200+	280	NS	280
UN6985	Spearmint Green	200+	280+	260+	280+	200+	300	280+	300
UN6994	Leaf Green	200	240	220	NS	NS	NS	NS	NS
UN66070	Fern Green	200+	280	260	260	200+	280	NS	280
UN66072	Springtime	200+	280	260	260	200+	280	NS	280
UN66075	Racing Green	200+	280	260	260	200+	280+	NS	280+
UN66083	Fresh Green	200+	280	260	260	200+	280	NS	280
UN66087	Sage Green	200+	280	260	260	200+	280	NS	280
UN66088	Marine Blue	200+	280	260	260	200	280	NS	280
UN66099	Lime Green	*200+	NS	260	250	NS	280+	NS	280+
UN66100	Olive Green	200+	280+	260+	260+	200+	300+	280+	300+
UN7002	Light Grey	200+	280+	260+	280+	200+	300+	280+	300+
UN7020	Dark Grey	200+	280+	260+	280+	200+	300+	280+	300+
UN7021	Ash Grey	200+	280+	260+	280+	200+	300+	280+	300+
UN7053	Mid Grey	200+	280+	260+	280+	200+	300+	280+	300+
UN7378	Dove Grey	200+	280+	260+	280+	200+	300+	280+	300+
UN7759	Soft Grey	200+	280+	260+	280+	200+	300+	280+	300+
UN7994	Graphite	200+	280+	260+	280+	200+	300	280	300
UN7996	Moonstone	200+	280+	260+	280+	200+	300+	280+	300+
UN7999	Pebble	**200+	280+	260+	280+	200+	300+	280+	300+
UN77000	Cloud Grey	200+	280+	260+	280+	200+	300+	280+	300+
UN77007	Mink	**200+	280+	260+	280+	200+	300+	280+	300+
UN77013	Dusk	200+	280+	260+	280+	200+	300	280+	300
UN8004	Chocolate Brown	**200+	280+	260+	280+	200+	300+	280+	300+
UN8005	Terracotta	**200+	280+	260+	280+	200+	300+	280+	300+
UN8018	Light Brown	**200+	280+	260+	280+	200+	300+	280	300+
UN8021	Mushroom	**200+	280+	260+	280+	200+	300+	280+	300+
UN8029	Mid Brown	**200+	280+	260+	280+	200+	300+	280+	300+
UN8142	Dark Brown	**200+	280+	260+	280+	200+	300+	280+	300+
UN8332	Mahogany	**200+	280+	260+	280+	200+	300+	280+	300+
UN8399	Rosewood	**200+	280+	260+	280+	200+	300+	280+	300+
UN88721	Toffee	**200+	280+	260+	280+	200+	300+	280+	300+
UN88723	Honey Beige	**200+	280+	260+	280+	200+	300+	280+	300+
UN88726	Chestnut Brown	**200+	280	260	260	200+	280+	280+	280+
UN88729	Beige	**200+	280+	260+	260+	200+	300+	280+	300+
UN0055	Deep Black	200+	280+	260+	280+	200+	300+	280+	300+
UN0086	Ebony #	*200+	NS	260	260	NS	300	NS	300
UN0541	Gold	NS	240	240	240	200+	NS	NS	NS
UN0548	Aztec Gold #	*200+	NS	260	260	NS	300	NS	300
UN0567	Copper	NS	240	240	240	200+	NS	NS	NS
UN0701	Silver	200+	280+	260+	280+	200+	300+	280+	300+
UN0739	Pewter	200+	280+	260+	280+	200+	300+	280+	300+
UN1268	FL Yellow	*200+	NS	260+	260+	NS	300	NS	300
UN3752	FL Pink #	*200+	NS	260+	260+	NS	300	NS	300
UN6941	FL Green #	*200+	NS	260+	260+	NS	300	NS	300
UN2034TR	TR Amber #	*200+	NS	260	280	NS	300	NS	300
UN3012TR	TR Red #	*200+	NS	260+	260	NS	300	NS	300
UN5016TR	TR Blue #	*200+	NS	260+	260	NS	280	NS	280
UN6881TR	TR Green #	*200+	NS	260+	260	NS	300	NS	300
UN7903TR	TR Grey	*200+	280+	260+	280+	200+	300	280+	300

\* Suitable for use in all PVC except plasticized PVC.

\*\* Suitable for use in all PVC except tin stabilized PVC.

+ Potential use at temperatures above those indicated.

NS Not suitable for use in polymer indicated.

# Contains dyestuff which will migrate from PE/PP and all other polyolefins.

# OMNICOLOR® Color Chart

 White UN0001	 Marigold UN1702	 Flame Red UN3820	 Sky Blue UN5001
 Bright White UN0005	 Ivory UN1704	 Lobster Red UN3849	 Powder Blue UN5009
 Polar White UN0330	 Cream UN1707	 Tomato Red UN3850	 Mid Blue UN5011
 Coconut UN0332	 Seville Orange UN2239	 Fuchsia UN3853	 Royal Blue UN5027
 Magnolia UN1275	 Mandarin Orange UN2243	 Admiral Red UN3856	 Pale Blue UN5034
 Vanilla UN1293	 Pumpkin UN2250	 Cardinal Red UN3861	 Navy Blue UN5065
 Sunflower Yellow UN1625	 Nectarine UN2252	 Fire Engine Red UN3864	 Ultra Blue UN5179
 Daffodil Yellow UN1637	 Strawberry Red UN3223	 Rocket Red UN3872	 Pacific Blue UN5485
 Citrus UN1690	 Rose Pink UN3364	 Raspberry UN3879	 Baby Blue UN5982
 Banana UN1693	 Flesh Pink UN3513	 Burgundy UN4043	 Purple UN55094
 Jasmine UN1696	 Cherry Red UN3788	 Mulberry UN4204	 Ice Blue UN55157
 Canary Yellow UN1700	 Pastel Pink UN3801	 Aubergine UN4211	 Midnight Blue UN55160

			
Cornflower Blue UN55162	Olive Green UN66100	Dusk UN77013	Beige UN88729
			
Baltic Blue UN55171	Light Grey UN7002	Chocolate Brown UN8004	Deep Black UN0055
			
Alpine Green UN6969	Dark Grey UN7020	Terracotta UN8005	Ebony UN0086
			
Spearmint Green UN6985	Ash Grey UN7021	Light Brown UN8018	Gold UN0541
			
Leaf Green UN6994	Mid Grey UN7053	Mushroom UN8021	Aztec Gold UN0548
			
Fern Green UN66070	Dove Grey UN7378	Mid Brown UN8029	Copper UN0567
			
Springtime UN66072	Soft Grey UN7759	Dark Brown UN8142	Silver UN0701
			
Racing Green UN66075	Graphite UN7994	Mahogany UN8332	Pewter UN0739
			
Fresh Green UN66083	Moonstone UN7996	Rosewood UN8399	Fluorescent Yellow UN1268
			
Sage Green UN66087	Pebble UN7999	Toffee UN88721	Fluorescent Pink UN3752
			
Marine Blue UN66088	Cloud Grey UN77000	Honey Beige UN88723	Fluorescent Green UN6941
			
Lime Green UN66099	Mink UN77007	Chestnut Brown UN88726	

METALLICS

FLUORESCENTS

Clariant also offers five transparent colors. 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; MEVOPUR® masterbatches for medical and pharma; CESA® additive masterbatches; HYDROCEROL® chemical foaming and nucleating agents; and ENIGMA® special effects.

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.



Exactly your chemistry.

[www.clariant.masterbatches.com](http://www.clariant.masterbatches.com)

## 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

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