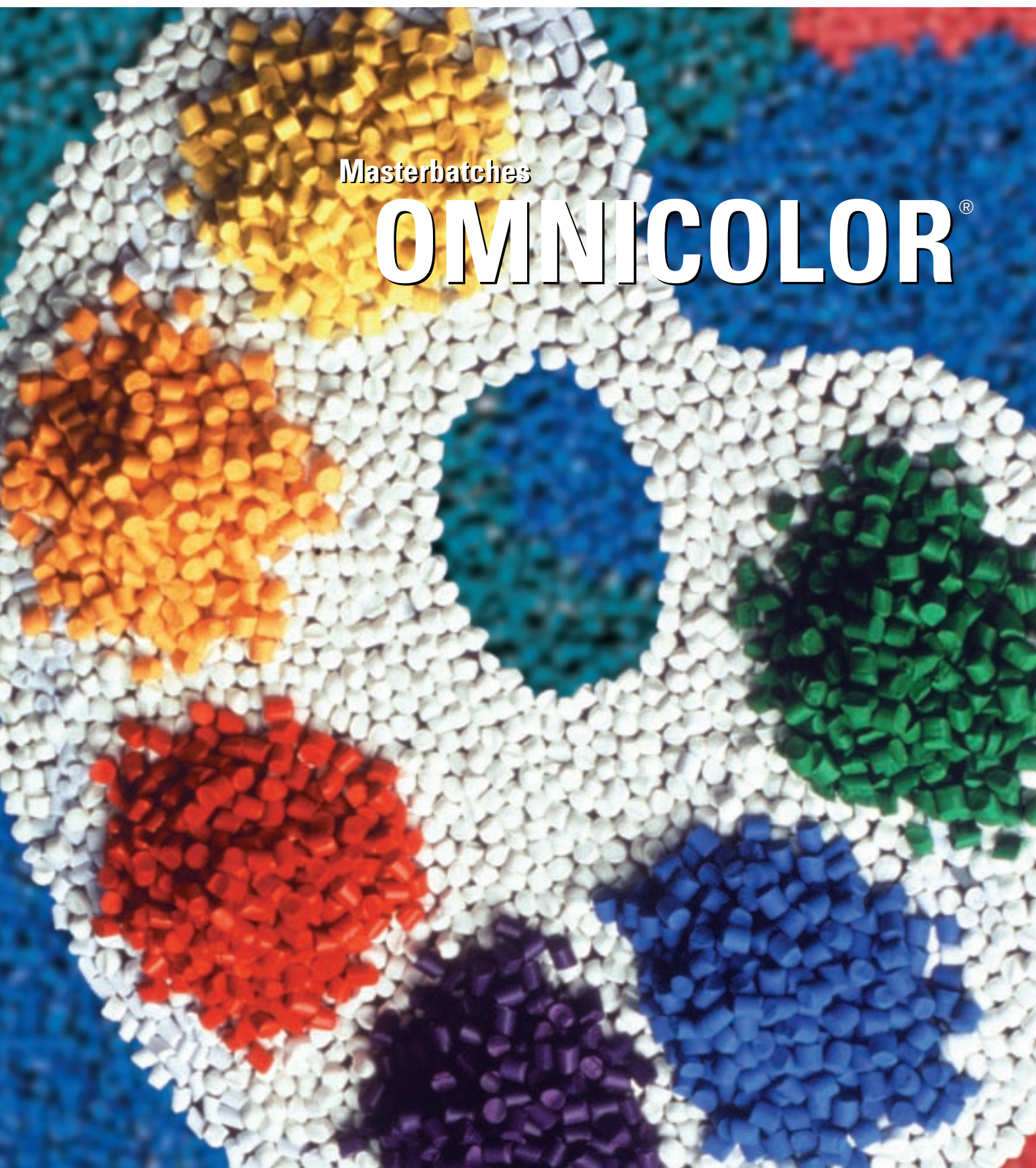


Plastics prefer Clariant.



Masterbatches

OMNIColor®



Multipurpose Stock Color Chart

OMNICOLOR® Multipurpose Color Concentrates

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:

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

OMNICOLOR 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 the first stage 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 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 OMNICOLORs 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 stock color range has been formulated with pigments that will perform satisfactorily in most polymers under most processing conditions.

FOOD, DRUG, MEDICAL AND COSMETIC APPLICATIONS

Due to the special requirements of regulated applications, OMNICOLORs are *not* recommended for use in food, drug, medical, cosmetic or other products that need an FDA letter of compliance.

PROCESS COMPATIBILITY

OMNICOLOR will withstand the drying temperatures of most polymers that require drying before processing, such as ABS and nylons. If the polymer requires dryer temperatures in excess of 225°F, then the OMNICOLOR concentrate must be added after the drying step. The most common polymers that would fall into this category are polyesters, polysulfones, and polycarbonates.

LIGHTFASTNESS

This is measured on the Blue Wool Scale (BWS), with a minimum of 1 and a maximum of 8. Pigments with BWS readings above 5 are adequate for virtually all indoor applications, although some fluorescent colors qualify with BWS readings of only ± 3 . Since OMNICOLORs do not contain UV stabilizers, outdoor applications must be reviewed on a case-by-case basis.*

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.

OPACITY/COLOR STRENGTH

All pigments vary in color strength and opacity, but only carbon black combines both qualities. Organic pigments, such as phthalo blue, have high tinting strength but poor opacity, which is particularly noticeable in transparent base polymers. Inorganic pigments, such as iron oxide, provide good opacity but poor tinting strength, which shows particularly in opaque polymers such as ABS. This explains why colors can differ significantly when using a multipurpose concentrate, at a given let-down ratio, across a wide range of polymer types.

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 is possible, i.e., grey, beige. The addition of pigment and carrier could also affect the UL rating. Therefore, subsequent flame testing may be necessary when using OMNICOLORs in flame retardant polymers.

HEAVY-METAL-FREE FORMULAS

OMNICOLOR universal concentrates are manufactured without heavy metals.

OMNICOLOR®

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 OMNICOLORs have not been tested.

OMNIColor® STOCK COLOR CHART





UN6985 Spearmint Green



UN66072 Springtime



UN66083 Fresh Green



UN66099 Lime Green



UN66070 Fern Green



UN66087 Sage Green



UN6969 Alpine Green



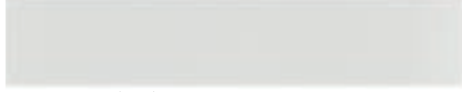
UN6994 Leaf Green



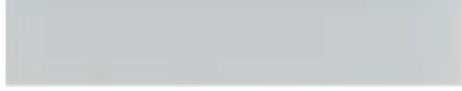
UN66075 Racing Green



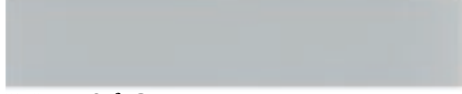
UN66100 Olive Green



UN77000 Cloud Grey



UN7002 Light Grey



UN7759 Soft Grey



UN7999 Pebble



UN7378 Dove Grey



UN7021 Ash Grey



UN7053 Mid Grey



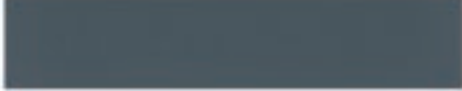
UN77013 Dusk



UN77007 Mink



UN7996 Moonstone



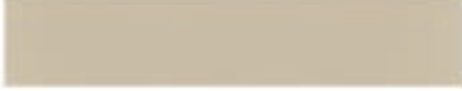
UN7020 Dark Grey



UN7994 Graphite



UN88723 Honey Beige



UN8021 Mushroom



UN88729 Beige



UN8018 Light Brown



UN88721 Toffee



UN8005 Terracotta



UN8029 Mid Brown



UN88726 Chestnut Brown



UN8399 Rosewood



UN8004 Chocolate Brown



UN8332 Mahogany



UN8142 Dark Brown



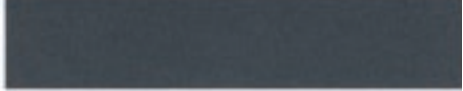
UN0055 Deep Black



UN0086 Ebony



UN0701 Silver



UN0739 Pewter



UN0548 Aztec Gold



UN0541 Gold



UN0567 Copper



UN1268 Fluorescent Yellow



UN6941 Fluorescent Green



UN3752 Fluorescent Pink



UN2034TR Transparent Amber



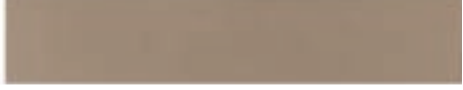
UN3012TR Transparent Red



UN5016TR Transparent Blue



UN6881TR Transparent Green



UN7903TR Transparent Grey

OMNICOLOR[®]

From Clariant

OMNICOLOR is the industry's first effective multipurpose line of color concentrates. It works with most thermoplastics to help you cut costs.

OMNIColor® PROCESSING TEMPERATURES

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

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

For applications that require resin-specific colorants, Clariant also offers over 100 stock colors for nylons, PBT polyesters, acetals, polycarbonates, ABS, HIPS, and olefins among others. In addition, Clariant's custom color and additive concentrates continue to set industry benchmarks for performance and innovation.

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	NYLON	PC/PES
UN66088	Marine Blue	200+	280	260	260	200	NS	280
UN6985	Spearmint Green	200+	280+	260+	280+	200+	280+	300
UN66072	Springtime	200+	280	260	260	200+	NS	280
UN66083	Fresh Green	200+	280	260	260	200+	NS	280
UN66099	Lime Green	*200+	NS	260	250	NS	NS	280+
UN66070	Fern Green	200+	280	260	260	200+	NS	280
UN66087	Sage Green	200+	280	260	260	200+	NS	280
UN6969	Alpine Green	200+	280	260	260	200+	NS	280
UN6994	Leaf Green	200	240	220	NS	NS	NS	NS
UN66075	Racing Green	200+	280	260	260	200+	NS	280+
UN66100	Olive Green	200+	280+	260+	260+	200+	280+	300+
UN77000	Cloud Grey	200+	280+	260+	280+	200+	280+	300+
UN7002	Light Grey	200+	280+	260+	280+	200+	280+	300+
UN7759	Soft Grey	200+	280+	260+	280+	200+	280+	300+
UN7999	Pebble	**200+	280+	260+	280+	200+	280+	300+
UN7378	Dove Grey	200+	280+	260+	280+	200+	280+	300+
UN7021	Ash Grey	200+	280+	260+	280+	200+	280+	300+
UN7053	Mid Grey	200+	280+	260+	280+	200+	280+	300+
UN77013	Dusk	200+	280+	260+	280+	200+	280+	300
UN77007	Mink	**200+	280+	260+	280+	200+	280+	300+
UN7996	Moonstone	200+	280+	260+	280+	200+	280+	300+
UN7020	Dark Grey	200+	280+	260+	280+	200+	280+	300+
UN7994	Graphite	200+	280+	260+	280+	200+	280+	300
UN88723	Honey Beige	200+	280+	260+	280+	200+	280+	300+
UN8021	Mushroom	**200+	280+	260+	280+	200+	280+	300+
UN88729	Beige	200+	280+	260+	280+	200+	280+	300+
UN8018	Light Brown	**200+	280+	260+	280+	200+	280+	300+
UN88721	Toffee	**200+	280+	260+	280+	200+	280+	300+
UN8005	Terracotta	**200+	280+	260+	280+	200+	280+	300+
UN8029	Mid Brown	**200+	280+	260+	280+	200+	280+	300+
UN88726	Chestnut Brown	**200+	280+	260+	280+	200+	280+	300+
UN8399	Rosewood	**200+	280+	260+	280+	200+	280+	300+
UN8004	Chocolate Brown	**200+	280+	260+	280+	200+	280+	300+
UN8332	Mahogany	**200+	280+	260+	280+	200+	280+	300+
UN8142	Dark Brown	**200+	280+	260+	280+	200+	280+	300+
UN0055	Deep Black	200+	280+	260+	280+	200+	280+	300+
UN0086	Ebony	*200+	NS	260	260	NS	NS	300
UN0701	Silver	200+	280+	260+	280+	200+	280+	300+
UN0739	Pewter	200+	280+	260+	280+	200+	280+	300+
UN0548	Aztec Gold	*200+	NS	260	260	NS	NS	300
UN0541	Gold	NS	240	240	240	200+	NS	NS
UN0567	Copper	NS	240	240	240	200+	NS	NS
UN1268	Fluorescent Yellow	*200+	NS	260+	260+	NS	NS	300+
UN6941	Fluorescent Green	*200+	NS	260+	260+	NS	NS	300
UN3752	Fluorescent Pink	*200+	NS	260+	260+	NS	NS	300
UN2034TR	Transparent Amber	*200+	NS	260+	280	NS	NS	300
UN3012TR	Transparent Red	*200+	NS	260+	260	NS	NS	300
UN5016TR	Transparent Blue	*200+	NS	260+	260	NS	NS	300
UN6881TR	Transparent Green	*200+	NS	260+	260	NS	NS	300
UN7903TR	Transparent Grey	*200+	280+	260+	280+	200+	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.

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® The Cost-Effective Choice

With an average let-down ratio of 100:1 – four times the 25:1 ratio typical of other colorants – just a little OMNIColor goes a long way. And with a minimum order of just 25 pounds, OMNIColor is also economical to handle, process and store. For testing purposes, samples are available upon request.

The information in this publication corresponds to the present state of our knowledge and is intended to describe our products and their possible applications. It is not intended to guarantee the suitability of particular product characteristics for a specific use. Any existing industrial rights are to be taken into consideration. Quality is guaranteed in accordance with our general conditions of sale.

Clariant

Masterbatches Division

85 Holden Industrial Park

Holden, MA 01520, USA

Tel: 508-829-6321

Fax: 508-829-6230

www.clariant.masterbatches.com

OMNIColor is a registered trademark of Clariant.
MB1069 10.00