



M.G. Polyblends



MG Polyblends can help turn your most challenging product dreams into reality. Thanks to new generation facilities like a state-of-the-art **Twin Screw Extruder** (from **Freesia Macross Corporation, Japan**) and a sophisticated laboratory, We offer you a wide range of masterbatches for Extrusion, Injection Moulding, Blow Moulding, Rotomoulding, Thermoforming etc. Most importantly, we offer excellent quality, consistency and reproducibility – in every masterbatch, every time.



Product Specification

Generally powdered pigments have aggregates and agglomerates which can not be further broken down into primary particles by milling process. This problem is mainly observed in Black, Phthalocyanine Blue, Phthalocyanine Green, Red, Yellow etc. pigments. It contains aggregates and agglomerates which creates specs (poor dispersion due to undispersed particles) in blown films, thin injection moulded parts etc.

In **M.G.Polyblend's** Micro PVC master batch, the pigment is dispersed to the finest possible particle size by using speciality dispersant and additives under strict process conditions. This Micro PVC master batch gives excellent dispersion in final applications.

APPEARANCE	Dust free micro granules.
CARRIER RESIN	PVC compatible low molecular weight polymer
BENEFITS	<ul style="list-style-type: none"> ❖ Consistent colour strength ❖ Excellent and uniform dispersion ❖ Economy in use ❖ Unlike dry pigments, these master batches are non Polluting & easy to use.
RECOMMENDED DOSAGE	0.1 to 2.0 % depending on the final shade required.
METHOD OF USE	It can be used directly in place of dry pigments in high speed mixer during dry blend preparation or it can be used directly through on line dosing unit attached to extruder or injection moulding machine.
APPLICATIONS	Extruded and moulded PVC / PE products like pipes, sheets, Profiles, flooring, wires & cables etc.
PACKAGING	Material is packed in 10 Kg fiber drum or 25 kg HDPE Woven Sacks.

CERTIFICATE OF ANALYSIS

PRODUCT NAME : MICRO COLOUR FOR PVC
 COLOURS AVAILABLE : BLACK, WHITE & COLOURS
 CARRIER RESIN : PVC COMPATIBLE WAX

GENERAL PROPERTIES

S.NO.	PROPERTIES	VALUES
1.	BULK DENSITY	0.5-0.85 gm/ml
2.	MOISTURE CONTENT	<0.02%
3.	LIGHT FASTNESS	EXCELLENT
4.	HEAT STABILITY	STABLE UPTO 300°C
5.	PIGMENT CONTENT	40-60%

(*) This temperature is at our lab conditions. Its varies on actual processing machinery and conditions at the client's end.



PRODUCT	CODE	PIGMENT CI	CARRIER RESIN	PIG. LOADING	LIGHT FASTNESS	HEAT STABILITY IN °C	APPLICATIONS
SCARLET RED MICRO	R-2048	RED 48:2	WAX	40	6	240	ALL PE AND PVC APPLICATIONS
FIRE RED MICRO	R-2140	RED 48:3	WAX	40	6	240	ALL PE AND PVC APPLICATIONS
TOMATO RED MICRO	R-2047	RED 53:1	WAX	40	5	240	ALL PE AND PVC APPLICATIONS
DEEP RED MICRO	R-2141	RED 57:1	WAX	40	5	250	ALL PE AND PVC APPLICATIONS
RED MICRO	R-2142	RED 254	WAX	40	8	300	ALL PE AND PVC APPLICATIONS
RED MICRO	R-2143	RED 101	WAX	70	8	300	ALL PE AND PVC APPLICATIONS
GREEN MICRO	G-5156	GREEN 7 (BLUER)	WAX	40	8	300	ALL PE AND PVC APPLICATIONS
GREEN MICRO	G-5154	GREEN 7 (YELLOWISH)	WAX	40	8	300	ALL PE AND PVC APPLICATIONS
GOLDEN YELLOW MICRO	Y-4227	YELLOW 83	WAX	40	7	200	ALL PE AND PVC APPLICATIONS
YELLOW MICRO	Y-4228	YELLOW 168	WAX	40	8	260	ALL PE AND PVC APPLICATIONS
YELLOW MICRO	Y-4229	YELLOW 62	WAX	40	7	220	ALL PE AND PVC APPLICATIONS
YELLOW MICRO	Y-4230	YELLOW 180	WAX	40	8	300	ALL PE AND PVC APPLICATIONS
YELLOW MICRO	Y-4231	YELLOW 191	WAX	40	8	280	ALL PE AND PVC APPLICATIONS
YELLOW MICRO	Y-4232	YELLOW 13	WAX	40	7	200	ALL PE AND PVC APPLICATIONS
LEMON YELLOW MICRO	Y-4233	YELLOW 34 (LEMON)	WAX	70	6	240	ALL PE AND PVC APPLICATIONS
YELLOW MICRO	Y-4234	YELLOW 34 (MIDDLE)	WAX	70	6	240	ALL PE AND PVC APPLICATIONS
DEEP BLUE MICRO	B-6214	BLUE 15:1	WAX	40	8	280	ALL PE AND PVC APPLICATIONS
BRILLIANT BLUE MICRO	B-6215	BLUE 15:3	WAX	40	8	300	ALL PE AND PVC APPLICATIONS
ULTRAMARINE BLUE MICRO	B-6216	BLUE 29	WAX	70	8	300	ALL PE AND PVC APPLICATIONS
VIOLET MICRO	V-7020	VIOLET 23	WAX	30	7	240	ALL PE AND PVC APPLICATIONS
SCARLET ORANGE MICRO	O-3146	ORANGE 34	WAX	40	7	220	ALL PE AND PVC APPLICATIONS
ORANGE MICRO	O-3147	ORANGE 64	WAX	40	8	300	ALL PE AND PVC APPLICATIONS
ORANGE MICRO	O-3148	RED 104	WAX	70	5	240	ALL PE AND PVC APPLICATIONS
LIGHT GREY MICRO	GR-11123	BLEND	WAX	60	8	280	ALL PE AND PVC APPLICATIONS
TERRACOTTA MICRO	Y-4215	BLEND	WAX	55	8	280	ALL PE AND PVC APPLICATIONS
DARK GREY MICRO	GR-11124	BLEND	WAX	60	8	250	ALL PE AND PVC APPLICATIONS
BLACK MICRO	BK-1033	PB 7	WAX	40	8	300	ALL PE AND PVC APPLICATIONS
BLUISH WHITE MICRO	W-1055	PW 6	WAX	60	8	280	ALL PE AND PVC APPLICATIONS



The information given below in this document is only a recommendation, believed to be reliable and is given in good faith but without warranty. Users are advised to test the product to ascertain the suitability for the intended use



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Usage Method (Case Study-1)

A trial of **PVC Grey colour microbeads** has been taken on an Extrusion Machine for manufacturing **PVC Mats**. We found excellent results as discussed below:-

MACHINE USED : Extruder with Coat Hanger T Die : China
RAW MATERIAL USED : PVC (Reliance Petrochemical)
STRUCTURE NAME : Lip Die
PROCESS :

(1) Dry Blending in High Speed Mixer :-

(a) PVC : 12.5 Kg.
DOP : 3 Kgs
Tin Stab. : 375 gms

The above raw material is mixed at 80deg.C for 5 minutes. After this process is over the following raw material is added and mixed at 115 to 120 deg.C for 5 minutes.

(b) OP4 (anti block agent) : 187 gms
Soya Oil : 250 gms
Stearic Acid : 150 gms
CaCO₃ : 500 gms
Grey Microbeads : 350 gms or 1.75%

(2) Extrusion Process :- The extruder was set on the following temperatures :-

(a) Barrel Temp : I - 48 deg. C
II - 150 deg. C
III - 152 deg. C
IV - 154 deg. C
(b) Cylinders Temp : I - 158 to 160 deg. C
II - 160 to 162 deg. C
(c) Heater Temp : I - 177 deg. C
II - 170 deg. C
III - 162 deg. C
IV - 159 deg. C
V - 158 deg. C
VI - 165 deg. C
VII - 169 deg. C
(d) Die Temp : 200 deg. C

The entire dry blended material was put into the hopper of the extruder and machine was switched on. We got a very good PVC mat having excellent shine & uniformly dispersed colour.

RESULTS

- ❖ Consistent colour strength
- ❖ Excellent and uniform dispersion
- ❖ Economy in use
- ❖ Unlike dry pigments, these masterbatches are non polluting & easy to use.



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Usage Method (Case Study-2)

A trial of PVC Black Color Microbeads has been taken on a Twin Screw Extrusion machine for manufacturing PVC Pipes.

We found excellent results as discussed below:

PRODUCT NAME	: PVC BLACK MICROBEADS
PRODUCT CODE	: (BK-1033)
CONSUMPTION RATIO	: 0.76%
DOSING UNIT	: Color fed 380
MACHINES	: Twin Screw Extruder
REFERENCE STANDARD	: IEC 61386

PROCESS TEMPERATURES :

BARREL TEMP °C	: 180-185-185-180-170
SCREW OIL TEMP °C	: 160
TOOL ZONES °C	: 185 – 173 – 170 – 190 - 190

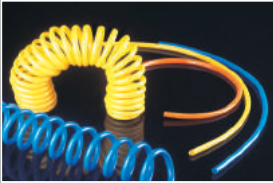
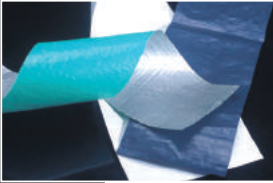
PROCESS REPORT :

Found Good surface finish

QUALITY REPORT:

SL. NO	TEST	REQUIREMENT	OBSERVATION	RESULT
1.	Colour & Surface finish	Shall be smooth surface finish	Found smooth surface finish	Passed
2.	Impact test (-5 Deg C for 2 Hrs)	Shall show no sign of cracks	Found no sign of cracks or disintegration	Passed
3.	Bend test (-5deg C for 2 Hrs)	a. Shall show no sign of cracks b. Shall pass bending gauge through the sample	Found no sign of cracks Found gauge passed through sample	Passed Passed
4.	Collapse test (60degc for 24 Hrs)	a. Shall show no sign of cracks b. Shall pass bending gauge through the sample	Found no sign of cracks Found gauge passed through sample	Passed Passed
5.	Compression test	Max: 10%	9.1%	Passed



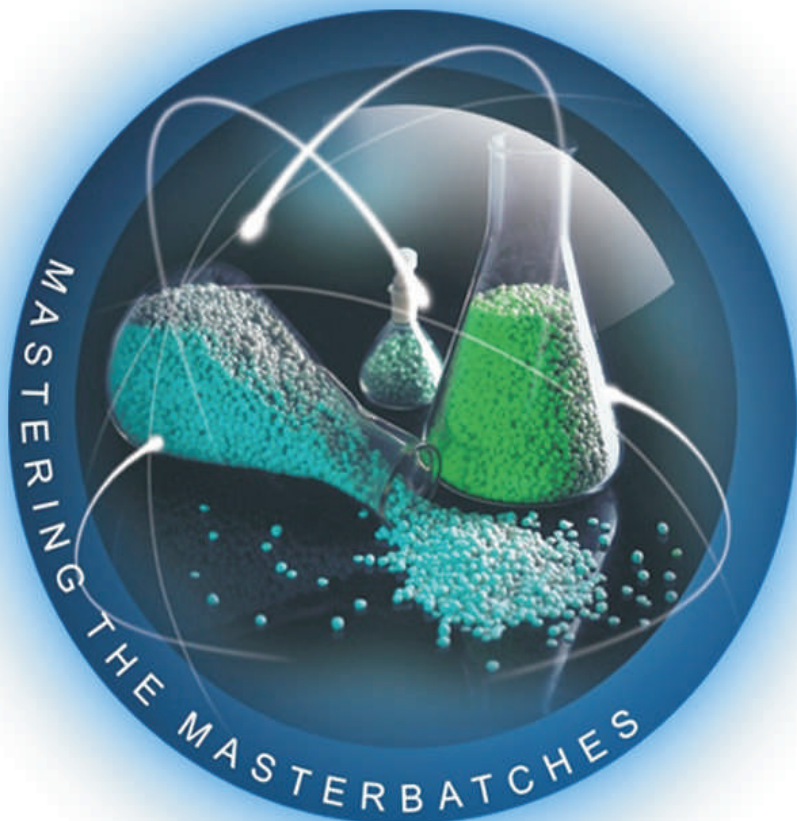


Product Spectrum

- **WHITES**
- **BLACKS**
- **STANDARD COLORS** as per RAL and PANTONE
- **SPECIAL EFFECTS** : Marble / Granite, Metallic, Fluorescent, Pearlescent, Glow-in-dark, Transparent.
- **ADDITIVES** : Antiblock, Antioxidant, UV stabilizer, Slip, Antislip, Optical Brightner, Polymer Processing Aid, Foaming Agent, Clarifier / Nucleating Agent, Antimicrobial, Anticorrosive (VCI), Antistatic, Anti Rodent.
- **Rotofoam Masterbatch for water tanks**
- **One Shot Foam Masterbatch for rotational moulding**
- **Micro Color Masterbatches / Microbeads for All Polymers (Wax Base)**
- **Silicone Masterbatch for All Applications.**
- **Mono Color / Pigment Concentrates for PE Films**
- **Masterbatches for Polyolefins (LDPE, HDPE, LLDPE , PP, BOPP).**
- **Masterbatches for Styrenics (GPPS, SAN, HIPS & ABS)**
- **Masterbatches for Engineering Plastics (nylons, PET / Polyester, Polycarbonate, PBT, etc.)**
- **Masterbatches for TPU**
- **PPR Color Masterbatches**
- **Unbreakable Compound for Rotational Moulding**
- **PET Strap Masterbatch**
- **Lubrication Masterbatch for Nylon**
- **Foam Masterbatch for HDPE Pipes**



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