



M.G. Polyblends

**Non-Polluting Core Solution
Inside & Outside**



**Poly Propylene Random (PPR)
Master Batches**



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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

M.G.Polyblends has designed a special master batches for colouration of polypropylene random (PPR) pipes. This master batches has superior dispersability of the pigment and does not damage rigidity, heat resistance and impact resistance of the pipe.

This master batch contains some special additives which brings elasticity, flexibility and impact toughness while maintaining clarity in the pp random copolymer.

AVAILABLE MASTER BATCHES

Anti-Microbial, Antioxidants, U.V. Resistive, Polymer Processing Aid & PPR Green master batch.

CARRIER RESIN

Polyolefinic.

RECOMMENDED DOSAGE

1 - 2 % adjust it as per requirement.

APPLICATIONS

Extrusion i.e Pipes

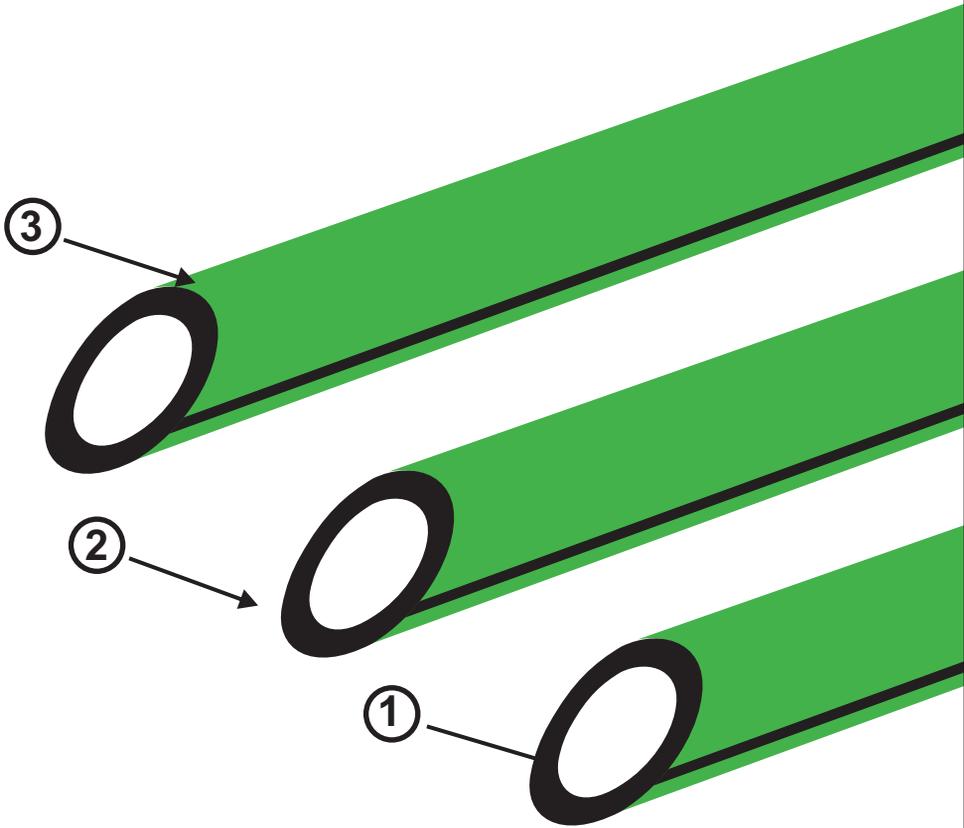
ADVANTAGES

- ❖ Imparts excellent colour to the pipe.
- ❖ Increase mechanical properties like elasticity, flexibility and impact strength.

PACKAGING

Material is packed in HDPE woven sacks of 25 Kgs.





- 1. Inner Layer :** The Inner layer coming in direct contact with water / fluids is made with Anti-Microbial master batch to keep water bacteria and fungus free. Antioxidants master batch is used in Inner layer of PPR pipe to provide extraction resistance in hot water and oxidation resistance to chlorine.
- 2. Centre Layer :** This layer is made in black master batch to protect the piping system from algae formation & is the most effective colour to shield from UV rays.
- 3. Outer Layer :** Contains colour master batch mainly green and U.V. Resistive master batch to give the pipe long life. Also PPA master batch is used for improved processing.



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Usage Method (Case Study)

A multilayer PPR pipe was made on a standard extruder (L/D 33:1)using Polypropylene Random Grade (AER 003 N of M/s RIL, Mumbai) .Cooling temperature and time was accurately kept because high cooling water temperature will cause increased contraction of pipe and cooling too low, too fast, this will result in excessive residual stress in the pipe.

Following masterbatches were added along with the PPR polymer in the LDR 1-2%

- 1.) UV masterbatch
- 2.) Antioxidant
- 3.) Antimicrobial
- 4.) Green colour master batch
- 5.) Black colour master batch
- 6.) Polymer processing aid master batch .

These all master batches also contains special additives which make the pipe more elastic, flexible and high impact strength.

Following results were obtained:

- 1.) Excellent thermal stability- Due to this feature the water temperature transmitted by the pipes can be as high as 95°C. Moreover the pipe has excellent chlorine resistance.
- 2.) The water carried in the pipe was pure for drinking.
- 3.) The pipe can now last for more than 50 years.
- 4.) The smoothness of internal surface of the pipe has become smooth as a result there is low friction coefficient and water can travel at high speed.
- 5.) Due to high elasticity , any incorrect bend or twist in the pipe can be easily rectified.
- 6.) High impact strength of the pipe even at -20 degree centigrade temperatures.
- 7.) Excellent frost resistance(no bursting)

APPLICATIONS:

Residential cold and hot water system
Underground heating system
Conveyor of industrial water and chemical materials
Sanitary and pure pipelines
Hot water recycling system
Compressed air pipelines
Drink manufacturing and conveying system
Other industrial and agricultural pipelines





Product's Technical Specification

CERTIFICATE OF ANALYSIS

PRODUCT NAME : PPR GREEN

COLOURS : GREEN
AVAILABLE

CARRIER RESIN : POLYOLEFINIC

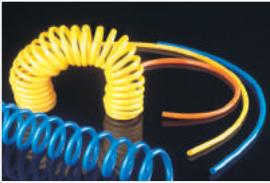
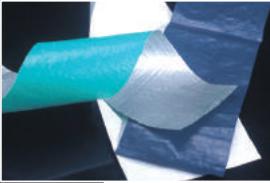
GENERAL PROPERTIES

S.NO.	PROPERTIES	TEST METHOD	VALUES
1.	MELT FLOW INDEX (AT 230°C, 2.16 kG.)	ASTM-D-1238	13.12
2.	SPECIFIC GRAVITY	ASTM-D-792	0.909
3.	MOISTURE CONTENT	-	<0.02%
4.	LIGHT FASTNESS	-	EXCELLENT
5.	HEAT STABILITY	-	STABLE UPTO 230-250°C
6.	BULK DENSITY	Gm/ml	0.556

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



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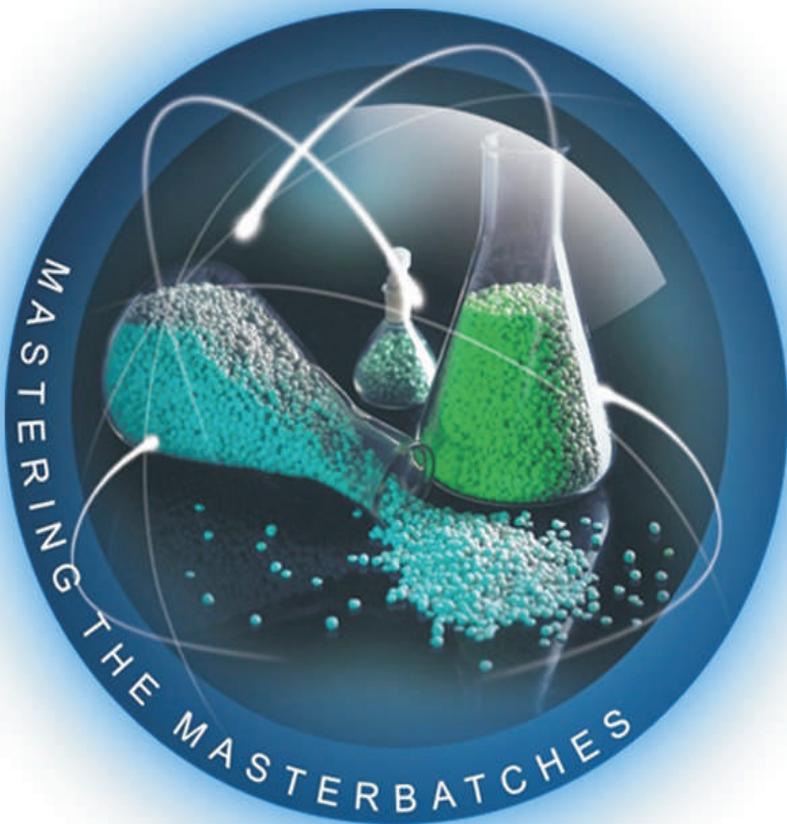


Product Spectrum

- **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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