

ANTIMICROBIAL MASTERBATCH

SPL provides an extra layer of protection, a permanent barrier against transmission of harmful fungi, bacteria and algae through contact with everyday items through the specially designed Antimicrobial masterbatch.

The active ingredient in SPL Antimicrobial Masterbatch is ionic silver, a multi-site naturally occurring element, known to have broad spectrum antimicrobial activity. It is effective against harmful microorganisms present in everyday life such as bacteria (Escherichia Coli, Staphylococcus Aureus, Salmonella), fungi (Aspergillus Niger), mildew, mold & algae. Because silver is not considered harmful to humans, animals or plants this masterbatch can be used in a wide range of applications where hygiene, odor control & stain resistance are main objectives.



The micronized silver is loaded onto a surface modified carrier which ensures that the silver is uniformly dispersed in the polymer matrix and is released at a controlled rate, ensuring homogenous protection of the material with minimum amount of silver. Hence, it is suitable for applications wherein the antimicrobial activity is expected to endure for several years preserving the aesthetic and functional properties of plastic products.

The mechanism by which the masterbatch functions involves:

- Silver ions in the masterbatch enter the micro organism's membrane by damaging & penetrating the cell wall.
- Silver ions deactivates its functionality by disrupting folic acid & protein synthesis and interferes with cell wall synthesis
- Silver ions inhibits DNS synthesis and prevent it from replication

The antimicrobial activity is tested using the following standard :

JIS Z 2801: 2000 for Bacteria

ASTM G21 for Fungi



Untreated polymer shows growth of bacteria on polymer surface



Treated polymer which prevents bacterial growth on surface

Benefits of the Antimicrobial Masterbatch

- Tried & tested silver based technology
- Tested against potentially harmful bacteria & fungi
- Helps prevent staining, discolouration & odor development
- Broad spectrum antimicrobial activity at low dosages
- Compatible with various polymers like PS,PE,PP
- Preserves aesthetics & functional properties of plastic products
- Enhances your marketing appeal & reach

Applications of the Antimicrobial Masterbatch

- Food Contact Application : Cutting boards, Bottles, Food Containers, Food Packaging & Processing equipment, Overhead Water storage tanks, Water purifiers, Refrigerator interiors (food trays, vegetable/fruit box, water reservoir)
- Non Food Contact Application: Air Conditioning/ventilation systems, Drainage pipes, Swimming pool covers, Toilet seat cover & bath accessories, Office stationary, Car interiors, Textiles, PP non woven fabric, Mats, Carpets, Rugs, Clothing, Shoe sole, Tooth Brush body & bristles, Medical devices, Crates, Pallets, Gaskets, Garbage cans / bags, Mobile covers, Laptops
- Agriculture : Irrigation pipes, Greenhouse films

Available Grades

SPL Grades	Dosage (%)	Compatible Polymers	Remarks
SP7336 0001	1 to 2	GPPS, HIPS, ABS, SAN	Recommended for Transparent applications also
SP7136 0001	1 to 2	LLDPE, LDPE, HDPE, PPH, PPCP	-

Regulatory Compliance

At recommended levels, SPL Antimicrobial Masterbatch are suitable for food contact applications.

All grades are Heavy Metal free and are compliant with RÖHS regulation.

Packaging & Storage

Material is supplied in pellet form, packed in 25 Kg laminated bags. SPL recommends storage of material in a ventilated & covered facility, protected from Moisture, Sunlight and Heat. The packing material used is not UV stabilized and hence should not be exposed to sunlight.

Exclusion of Liability

The information contained herein is provided for general reference purpose only. By providing the information contained herein, Supreme Petrochem Ltd makes no guaranty or warranty, and does not assume any liability, with respect to the accuracy or completeness of such information, or the product results in any specific instance and hereby expressly disclaims any implied warranties of merchantability or fitness for a particular purpose, or any other warranties or representations whatsoever, expressed or implied. Nothing contained herein shall be construed as a license to use the products of Supreme Petrochem Ltd in any manner that would infringe any patent.

Zonal Office (North)

Unit No. 1008, 10th Floor, WTT Tower-B, Plot No. C-1, Sector-16, Noida - 201 301

Ph.: (91 - 120) 4879 050, 4879 073

E-mail: spl_delhi@spl.co.in, spldel@airtelmail.in

Zonal Office (South)

39 - I, North Parade Road, Chakrapani Colony, St.Thomas Mount, Chennai - 600 016

Ph.: (91 - 44) 2231 3633/59/60 Fax: (91 - 44) 2231/3644/45

E-mail: spl_chennai@spl.co.in

Zonal Office (East)

183, Rajdanga, Block BF II, 1st Floor, Shantipally, Kolkata - 700 107

Ph.: (91 - 33) 2441 7069, Fax: (91 - 33) 2441 7039

E-mail (Polystyrene / EPS Resin): m_palit@spl.co.in

Sales Office (Bengaluru)

No.314/C, 1st Floor, Countour Road, Padmanabha Nagar, Bengaluru - 560 070

Telefax: (91 - 80) 2679 1315, Mobile: (91) 9845062990

Email:- srivathsa_kashyap@spl.co.in

Sales Office (Hyderabad)

No.202, Gruhashilpi Apartments, 14-47, P & T Colony, Dilshuk Nagar, Hyderabad - 500 060

Telefax: (91 - 40) 2006 0369, Mobile: (91) 9391024947

Email: k_rajeevan@spl.co.in

Corporate Office, Exports & Zonal Office (West)

Solitaire Corporate Park, Building No - 11, 5th Floor, 167, Guru Hargovindji Marg, Andheri - Ghatkopar Link Road, Chakala, Andheri (E), Mumbai - 400 093, Maharashtra, India. Ph.: (91 - 22) 6709 1900 Fax:(91 - 22) 67091924 / 25 / 26 Website: www.supremepetrochem.com

E-mail (Exports) : export@spl.co.in
West Zone (Polystyrene) : marketing@spl.co.in
West Zone (EPS Resin) : epsmarketing@spl.co.in
West Zone (Compounds) : appl_dev@spl.co.in
West Zone (Masterbatches) : spc_masterbatches@spl.co.in
West Zone (XPS Insulation) : insuboard@spl.co.in
Customer service : css@spl.co.in



SUPREME PETROCHEM LTD

