

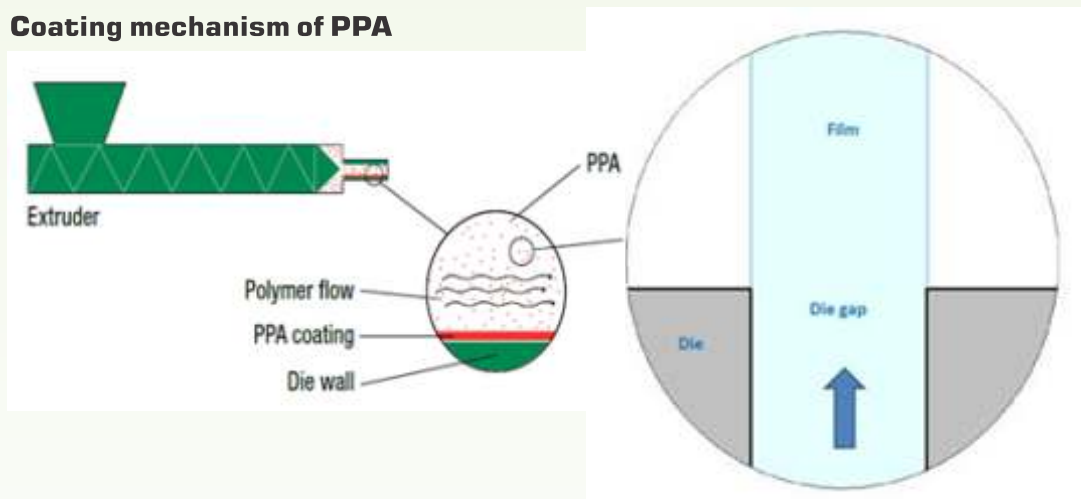
POLYMER PROCESSING AID MASTERBATCH (PPA)

SPL Polymer Processing Additive (PPA) Masterbatches are fluoropolymer based concentrate designed to enhance the extrusion of various thermoplastic resins, by improving process efficiency, product quality and machine throughputs.

Typical extrusion processes that benefit from the addition of PPA Masterbatch are blown and Cast film, High pressure / Cross linked / Corrugated Pipes, Sheet, Wire & Cable, Injection & Extrusion Blow Molding, Tapes and Fibre.

PPA MB is recommended for use in formulations consisting of LLDPE, LDPE, mLLDPE, HDPE, and UHMW-HDPE.

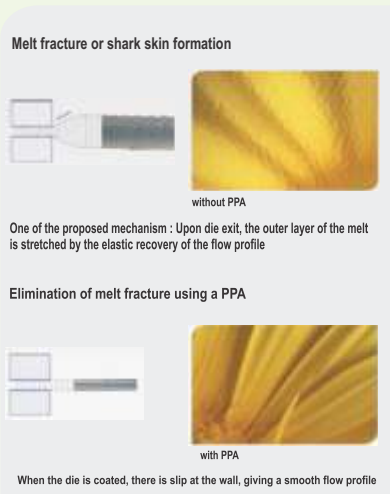
Coating mechanism of PPA



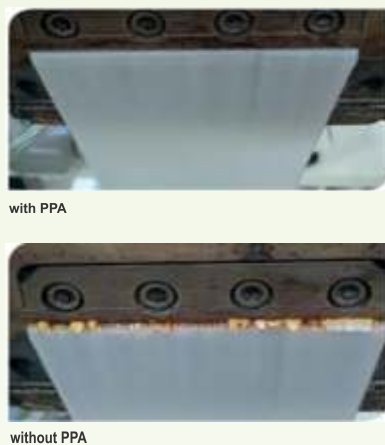
When Masterbatch containing PPA is introduced into the extruder, the PPA migrates & coats the metal surfaces of the extruder and die, providing a lubricant interface for the resin to pass over, thereby reducing friction & Die pressure. The coating is very thin and is dynamic, as the PPA is continuously being deposited and removed by the resin compound. A maintenance or minimum level is required to form and maintain a continuous coating on the metal surfaces of the die.

The main advantages of use of PPA Masterbatch are –

- ❖ Eliminate Melt Fracture or cyclic Sharkskin effect in films
- ❖ Reduce or eliminate Die Build up, Die lines & accumulation of internal deposits
- ❖ Reduce or eliminate optical defects like Gels & Fish eyes in films
- ❖ Improvement in optical properties like Clarity in Blown / Cast films & Surface Gloss in Molded / Extruded containers and pipes
- ❖ Narrow Gauge Control in Films
- ❖ No adverse effect on the ability for, and stability of, Corona treatment in films
- ❖ Faster Colour Changes
- ❖ Lowers downtime & increase Machine throughput, thus higher Productivity
- ❖ Low Energy Consumption due to faster cooling, lower Machine Torque & less Shear Rate
- ❖ Lower processing temperatures aid in Bubble stability in Blown film, reduce cycle time in Blow molding and eliminate taste & odour issues in Pipe extrusion



Reduction of die build up in cast film



Recommended Applications include –

- ❖ Food & Non Food Packaging Film
- ❖ Agricultural Film
- ❖ Tapes for Woven Sacks
- ❖ Wire & Cable
- ❖ Bottles, Drums, Tanks
- ❖ Water & Gas high pressure Pipes
- ❖ Drainage, Irrigation & Sewerage Pipes
- ❖ Ducts & Conduits
- ❖ PP Fibre

Reduction of interfacial stability in cast film



GRADE	RECOMMENDED DOSAGE
SP7126 0001 2% PPA	1.0% - 2.0%
SP7126 0004 3% PPA	0.5% - 2.0%
SP7126 0002 5% PPA	0.5% - 2.0%

Note : In case further information is required, contact SPL representative for recommendation / clarification.

It is recommended not to exceed processing temperature of 245 Deg C in the Extruder.

At recommended dosage levels,

SPL PPA Master batch is suitable for food contact applications.

SPL PPA MB has no adverse effect on Corona treatment, Printing Ink adhesion, Heat sealing and / or glueing.

RECOMMENDED ADDITION PROCEDURE

Ensure that the Extruder barrel is empty by running it dry. This will ensure lesser use of PPA MB for initial conditioning & ensure quick startup.

Precondition the extruder & die with PPA MB, 3 – 5% premixed with the base polymer for 15 - 20 minutes in order to develop a lubricating layer on the metal surfaces in the extruder & die.

End of conditioning time is indicated by reduction & stabilisation of the die pressure at the same motor speed & temperature profile. Visually inspect the Die surface to ensure that all metal interfaces are clean & free from any polymer deposits and the extrudate is free from melt fracture & die lines; then reduce progressively to the maintenance addition level.



SUPREME PETROCHEM LTD

Corporate Office : Solitaire Corporate Park, Bldg. No. 11, 5th Floor, Chakala, Andheri (East), Mumbai - 400093. Maharashtra, INDIA
 Tel.: 0091 - 22 - 6709 1900 Fax : 0091 - 22 - 6709 1924 / 25 / 26,
 Email : (Export) export@spl.co.in, (Domestic) spc_masterbatches@spl.co.in,
 Customer Service : css@spl.co.in, Website : www.supremepetrochem.com



11/2015/SPL/CSS/01/003