Purge and Shut-down Products

Purge and Shut-down masterbatches (MB) provide a means of reducing manufacturing costs by shortening lost time and reducing waste raw materials that occur during clean outs of previous production material remainders from extrusion equipment.

Summary

Old colorants and degraded or incompatible resins can linger in an extruder and down-stream process equipment to cause prolonged contamination of a new product job. **Purge masterbatches** are designed to mildly scrub out your processing equipment during extrusion between jobs to accelerate old resin and colorant removal. **Shut-down masterbatch** is used to reduce the likeliness of polymer degradation from occurring when your extrusion equipment

Product Overview

100400 PURGE PE MB is a transition purge used when making color or resin changes. It contains 25% of a mildly abrasive irregular shaped inorganic material together with a combination of several other additives that provide a synergistic cleaning effect for maximum residue removal and minimum abrasion. Some polymer producers have found 100400 to be effective as a gel reducer when processing metallocene resins. Suggested usage is 50% depending upon the amount of build-up**.** Here are instructions for using **100400 PURGE PE MB** in molding and extrusion equipment**:**

1. Make enough of a blend containing 50% **100400 PURGE PE MB** and 50% of your virgin dilution resin to extrude for 20 minutes.
2. With heater temperatures set at your current condition, begin to extrude this blend until it is fully through the extruder.
3. Stop extruding. Reduce your heater temperatures to about 320ºF or the next warmest temperature your equipment can safely extrude.
4. Once temperature reduction is confirmed, resume extrusion of the blend. Do not exceed the recommended head pressure or motor amps.
5. Continue this activity for 15 to 30 minutes. Periodically inspect the purged material with a magnifying glass and appropriate illumination in search of black specks. When the presence of black specks has abated, purging activity should be complete.
6. If you are continuing to the next product run, begin to extrude virgin resin while increasing heater temperatures back to the desired profile.c

NaturBlendTM 103828 Universal Purge is a highly efficient purge masterbatch designed for blown and cast film extrusion, injection and blow molding, and profile extrusion processes. It chemically and physically removes oxidized material from screws and barrels cleaning the extrusion system for subsequent polymer runs. It is specially designed to purge out non-compatible materials like polyethylene mixed with nylons as an example. Here are instructions for using **NaturBlendTM 103828 Universal Purge** in molding and extrusion equipment**:**

1. Make a blend of 50% letdown of **103828** in your resin.
2. Maintain your temperatures of up to 500ºF.
3. Begin to extrude this blend until it is fully through the extruder.
4. **Cycle RPMs** up/down to aid in loosening build-up.
5. Continue for **approximately 30 minutes** or until material appears clean.

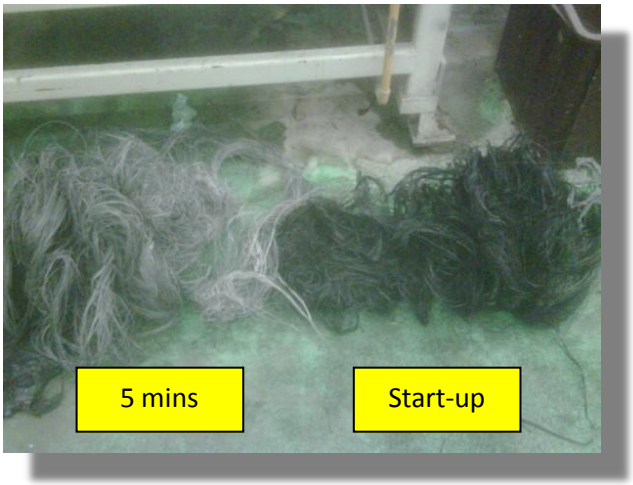
100401 ANTIOXIDANT PE MB a shutdown compound designed to reduce the oxidation of polyolefins remaining in the extruder during shutdown, start-ups and screen pack changes. Here are instructions for using **100401 ANTIOXIDANT PE MB** in molding and extrusion equipment**:**

1. Complete Steps #1 through #5 of the **100401 AO PE MB** instructions above.
2. Introduce **100401 ANTIOXIDANT PE MB** undiluted into the extruder.
3. Extrude until the **100401 ANTIOXIDANT PE MB** is fully through the barrel and nozzle while dropping the heater temperatures to 240ºF. Monitor amps and head pressure. As the temperature drops, head pressure will increase. Do not exceed the recommended head pressure or motor amps.
4. When the barrel temperature reaches 250ºF, turn off the extruder with the barrel full of **100401 ANTIOXIDANT PE MB** and shut the molding line down.
5. To restart your process equipment, set your temperatures to their normal operations conditions and start with your virgin resin once the set temperatures have been reached.

Products/Codes

Production Code	Resins for use with	Most Useful in…	FDA *
100400 PURGE PE MB	Polyolefins	Purging general extrusion processes.	Up to 5%
103828 NaturBlend Univ Purge	Polyolefins + nylons	Purging multi-layer extrusions composed of polyolefins and nylon barrier resins	Up to 20%
100401 ANTIOXIDANT PE MB	Polyolefins	Extruders that experience long downtimes.	Up to 5%

(*) If inadvertently used in contact with applications containing food, this product may be considered safe when use at levels as cited here. Ask Ampacet for details about more regulatory compliance information.



Performance Data Details

- Injection molding application
- Purging black nylon to a job molding white SURLYN®

	Previous purge MB	103828 NaturBlend Purge MB
Purge time until clear, mins.	**> 60**	**10**
Start-up parts rejected for contamination	**10%**	**0%**
Benefit	**None**	**80% reduction in purge time**

For more information on **Purge and Shut-down** products, their uses and complete Regulatory Status, contact your Ampacet Account Executive or visit **www.ampacet.com.**

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