

TROUBLESHOOTING GUIDE FOR PIPE EXTRUSION



High pressure extrusion:

- Increase the temperature of the adaptor and the head.
- Center the head.
- Use filter with a wider opening.
- Decrease the extrusion speed.
- Incorporate process assistant.

Superficial imperfections:

- Adjust the temperature profile.
- Use breaking plate and mesh package.
- Verify the sliding on the dragging track over the pipe.
- Adjust the dragging speed.
- Polish or chrome the Head/Nozzle set.
- Adjust the vacuum pressure.
- Adjust the water flow in the calibrator.
- Decrease the vacuum pressure.
- Periodically change the mesh package.

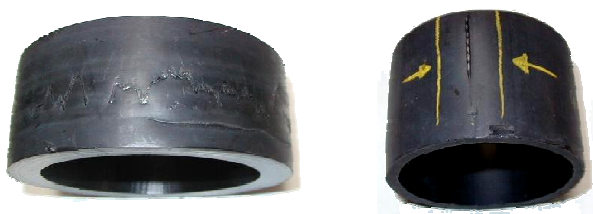


Figure 1. Example of superficial imperfections in pipes.

Migration of additives (plate out):

- Decrease the extrusion speed.
- Decrease the temperature profile.
- Polish or chrome the head.

Low resistance to hydrostatic pressure:

- Increase the temperature profile.
- Center the head.
- Decrease the pulling speed.
- Verify the concentrate quality.

High variation of flow or extrusion in waves:

- Increase the temperature profile.
- Make sure that the granulometry of the resin and the recovery is as homogeneous as possible; especially assure that it is free of long grains, dust particles and flakes.

- Increase the cooling of the passage at the throat.
- Make sure that the extrusion motor and the transmission belts work properly.

Excessive deformation, oval distortion or contraction of the pipe:

- Center the head.
- Homogenize the pipe cooling.
- Decrease the production speed.
- Verify the alignment of the dragging unit with the head.



Figure 2. Example of deformation in pipes.

Bubbles or Pores:

- Verify the presence of cold water drops before the entrance of the calibrator.
- Eliminate the air bubbles in the first bin.
- Decrease the temperature profile.
- Increase the vacuum.
- Decrease the excess of cold water in the calibrator.
- Pre-dry the material.



Figure 3. Examples or bubbles and/or pores in the pipes.

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Fusion fracture or rippled surface:

- Increase the temperature of the adaptor and the head.
- Increase the extrusion temperature.
- Calibrate the centering of the nozzle.
- Mix the resin with 10 or 20% of another grade of greater flow.
- Incorporate process assistant.

Improper cut:

- Verify the alignment of the saws.
- Sharpen the cutting implements.



Figure 4. Example of an improper cut in pipes.

This bulletin has been made by the Marketing Department of Polinter with the support of the specialists of Investigación y Desarrollo, C.A. (INDESCA) and by the Technical Services Department of CORAMER. This is intended for all clients and users of the Venelene® resins and we trust that the information contained herein is helpful and useful.

Please contact us at the following email address, info@polinter.com.ve or through our agent: Corporacion Americana de Resinas (CORAMER), with branch offices in Venezuela, Colombia, Peru, Ecuador and Chile (<http://www.coramer.com>), should you have any suggestions or comments regarding this issue.

The information described in this document is, to our best knowledge, accurate and truthful. However, since the particular uses and transformation conditions are completely out of our hands, the adjustment of the parameters in order to reach the maximum performance of our products for a specific application depends on and is the responsibility of the user.

In order to obtain more detailed information of the security aspects regarding the use and disposal of our products we invite you to consult the security pages (MSDS) of the Venelene® polyethylene.