



Navigation



Extrusion 1-0-Wiki Pages

- [Main Page](#)
- [Best Papers](#)
- [Book Reviews](#)
- [Consultants Corner](#)
- [Extruder Software](#)
- [Extrusion Hints](#)
- [Safety](#)
- [Shop Tools](#)
- [Sponsors](#)
- [Technical Articles](#)

Search the Wiki

  »

Viewing/Creating

- [Random Page](#)
- [Create a new Page](#)
- [All Pages](#)
- [Categories](#)

Account Management

- [Login/Logout](#)
- [Language Selection](#)
- [Your Profile](#)
- [Create Account](#)

Administration

- [Administration](#)
- [File Management](#)

Brought to you by:

The SPE Extrusion Division
Board of Directors



Interfacial Instabilities - Gels

Modified on Thursday, 26 February 2015 04:33 PM by [mpieler](#) Categorized as [Extrusion Hints](#)

(10) » [Underwater Pelletizing](#) » [Nylon Processing](#) » **[Interfacial Instabilities - Gels](#)** 


Interfacial Instabilities - Gels

Vol. 35 #1, Winter 2010

Interfacial instabilities in coex films can often give the appearance of gels. These “gels” are actually one polymer flowing across the interface into the other polymer layer due to localized rheology mismatches. The phenomena is most common at chemically bonded interfaces between tie-resins and EVOH or Nylon but can also occur at non bonded interfaces with significantly different viscosities mismatches. This type of interfacial instability is difficult to correct by changing processing conditions alone and usually require material changes. For best results, estimate shear rates in the die and choose materials with similar viscosities at those shear rates. When small viscosity mismatches are unavoidable, it is best to run the lower viscosity material closer to the channel wall.

- Dan Ward, Nova Chemicals

Return to [Extrusion Hints](#)

Some of the icons were created by [FamFamFam](#) .