

## EXTRUSION PROCESSING GUIDE- FLEXIBLE PVC COMPOUND

### GENERAL INFORMATION

The information provided in this document is typical processing conditions based on standard applications and equipment for general purpose and wire and cable flexible PVC compounds. This information is provided as a starting point for standard applications and equipment and may need to be adjusted slightly based on product, extruder screw specifications, wear, and rate of extrusion.

### EQUIPMENT

#### Screws

A screw optimized for the extrusion of PVC with a 24:1 L/D and with a Barrier Maddock or Spiral Maddock mixing section is recommended. General purpose 24:1 L/D screws with compression ratios in the range of 2.5 - 3.0:1 are successful in most applications.

#### Screens

A 3-screen pack system consisting of 40-60-40 mesh screens is recommended.

### TEMPERATURE PROFILE

The recommended melt temperatures will vary slightly depending on the hardness of the compound as well as each equipment manufacturing. Westlake recommends a ramped profile from the feed section to metering section with the set point of the last zone 10-20°F below the recommended melt temperature. The head and die heats should be equal to the last zone or approximately 10°F below the recommended melt temperature.

Hardness (10s)	Feed Zone (°F)	Zone 2 (°F)	Zone 3 (°F)	Zone 4 (°F)	Gate (°F)	Head (°F)	Die (°F)	Stock (°F)
50A	250	265	280	300	300	310	310	320
55A	255	275	290	300	305	315	315	330
60A	260	280	295	305	310	320	320	335
65A	265	285	300	310	315	325	325	340
70A	270	290	310	315	320	325	325	345
75A	280	310	315	320	330	330	330	350
80A	290	310	325	340	340	345	345	355
85A	300	315	330	350	350	355	355	360
90A	320	335	345	355	360	370	370	375

Revision Date: 04/11/2022

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Hardness (10s)	Feed Zone (°F)	Zone 2 (°F)	Zone 3 (°F)	Zone 4 (°F)	Gate (°F)	Head (°F)	Die (°F)	Stock (°F)
48D	330	345	355	365	370	370	370	375
52D	335	350	360	370	370	375	375	380
56D	345	355	365	375	370	375	375	380
62D	350	360	370	380	375	380	380	385
67D	355	365	375	385	375	380	380	385

**Temperature Conversion Chart**

°C	148.9	154.4	160.0	165.6	171.1	176.7	182.2	187.8	193.3
°F	300.0	310.0	320.0	330.0	340.0	350.0	360.0	370.0	380.0

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