

PROCESSING GUIDE FOR EXTRUSION OF HALGUARD® E INSULATION COMPOUNDS

EQUIPMENT & CONDITIONS	SUGGESTIONS						
Compound Drying	Typically not required. 150°F for 4 hours if desired.						
Color Concentrate	PE-based color concentrates.						
Machine Type	Typical PVC or PE extrusion equipment.						
Screw Design	<p>A) Metering Type, with shallow flights and long metering section.</p> <table border="0" data-bbox="600 777 974 892"> <tr> <td>Metering Section</td> <td>33%</td> </tr> <tr> <td>Transition Section</td> <td>33%</td> </tr> <tr> <td>Feed Section</td> <td>33%</td> </tr> </table> <p>(Barrier flights and low pressure mixing sections may improve melt quality and production rates)</p>	Metering Section	33%	Transition Section	33%	Feed Section	33%
Metering Section	33%						
Transition Section	33%						
Feed Section	33%						
Compression Ratio	2.4:1 to 3.5:1						
L/D Ratio	20:1 to 24:1						
Screen Packs	20/40/20 typical.						
Screw RPM	As required for proper mixing.						
Screw Cooling	Not Recommended.						
Water Bath	90°F for insulation is suggested for optimum physical properties.						
Tooling	<p>Cross-head: Low inventory cross-heads.</p> <p>Die Design: Matched tip and die angles, fairly tight together for optimum die pressure.</p> <p>Pressure Die: Size die 5% over final diameter for optimum speed and physicals.</p> <p>Tubing Die: Minimize land length. 1.5 - 2.0:1 DDR with 1.0 - 1.1 DRB.</p>						
Copper Preheat	200°F - 225°F actual copper temperature entering head for best results.						

PROCESSING GUIDE FOR EXTRUSION OF HALGUARD® E INSULATION COMPOUNDS

EQUIPMENT & CONDITIONS

SUGGESTIONS

Machine Temperatures

Hardness Range	Typical Barrel Settings	Melt Temperature Range
Below 70A	255°F - 310°F	330°F - 340°F
70A to 65C	270°F - 350°F	345°F - 360°F
65C to 70C	320°F - 365°F	365°F - 375°F
71C to 80C	330°F - 375°F	375°F - 380°F

**Melt temperature should be measured using a pyrometer on the material exiting the die.

Purging

If necessary, use HD polyethylene or polypropylene.

Regrind

Recyclable; mix up to 20% regrind with virgin.

Additional Considerations

Maddock and blister ring mixing screws are not recommended as their use will result in excessive melt temperature.

The information and recommendations contained in this bulletin are, to the best of our knowledge, accurate and reliable but no guarantee of their accuracy is made. All products are sold upon condition that purchasers shall make their own tests to determine the suitability of such products for their particular purposes and uses and purchaser assumes all risks and liability for the results of use of the products, including use in accordance with seller's recommendations. Nothing in this bulletin constitutes permission or a recommendation to practice or use any invention covered by any patent owned by this company or by others. There is no warranty of merchantability and there are no other warranties for the products described. For detailed Product Stewardship information, please contact us. Any product of Teknor Apex, including product names, shall not be used or tested in any medical or food contact application without the prior written acknowledgment of Teknor Apex as to the intended use. Please note that some products may not be available in one or more countries.



North America

505 Central Avenue
Pawtucket, RI 02861
+1-401-725-8000
1-800-554-9892

Singapore

41 Shipyard Road
Singapore 628134
+65-62652544

China

Room 1003,
Lujiazui Finance Plaza
No. 1217, Dongfang Road
Pudong, Shanghai 200127
+86-21-50108083

Email: vinyl@teknorapex.com | Website: www.teknorapex.com