

Extrusion Coating Troubleshooting Guide

Problem	Causes(s)	Possible Solution(s)	
Applesauce	Temperature setting is too high or too low	Decrease or increase the temperature profile accordingly	
	Inadequate resins	Completely purge previously run resin Check compatibility of resins blended	
	Inadequate mixing	Increase back pressure Increase mesh of the screen pack	
Draw Resonance	Temperature setting is too high	Decrease the temperature Make sure heaters are not over heating	
	High draw ratio	Decrease the die gap Increase the coating weight	
Edge Tear	Deckle setting off	Adjust the deckle to provide the proper setting	
	Insufficient temperature	Adjust the temperature to provide the ideal conditions for the resin	
	High draw ratio	Decrease the die gap Increase the coating weight of the resin	
	Low temperature at die end	Increase the temperature accordingly	
	Improper die design	Consult with supplier/manufacturer for recommendations	
Excessive Odor	Too much oxidation	Decrease the air gap Lower the melt temperature	
	Gauge Bands	Dirty die	Clean the die Remove any foreign material lodged within the die
High temperature		Check that the heaters are functioning properly Decrease the temperature	
Die adjusted wrong		Ensure a uniform die gap Adjust die with the use of the die bolts	
Fluctuating temperature		Check that the heaters are functioning properly Use a flat temperature profile	
Gels		Inadequate purging	Purge at lower temperatures Completely purge the extruder if a copolymer or ionomer was previously run
	Thermal degradation	Increase the screw speed Check for areas along the extruder where excessive heat is being produced Decrease the temperature of the resin to deter cross-linking	
	Contamination	Be sure to separate resins in storage Make sure transfer lines are not hung up with previously run resin	
	Inadequate mixing	Increase the back pressure Increase mesh of the screen pack	
	Molten Curtain Breaks	Wrong melt temperature	Adjust the melt temperature to provide the ideal conditions for the resin
		High draw ratio	Decrease the die gap Increase the coating weight of the resin
Oxidation	Resin degradation	Increase the screw speed of the extruder Reduce the back pressure Decrease the temperature	
	Inadequate purging	Purge at lower temperature Completely purge the extruder if a copolymer or ionomer was previously run	
	Pinholes	Substrate is too rough	Increase the thickness of the resin being extruded Use flame treatment on the substrate
Damaged or dirty idler rollers		Clean, polish, repair, or replace rollers as required	
Excessive tension		Reduce tension	

Problem	Causes(s)	Possible Solution(s)
Poor Adhesion	Insufficient oxidation	Decrease the line speed Increase the air gap
	Chill roll tack	Lower the temperature of the chill roll
	Substrate is too rough	Treat the substrate surface prior to use
	Quick cooling	Increase the temperature of the chill roll Decrease the air gap
	Low melt temperature	Increase the melt temperature of the resin Increase the back pressure Check that the heaters are functioning properly
Poor Heat Sealability	Contamination	Check the additives applied to the resin Keep resins in clean areas free of moisture and dust
	Over oxidation	Decrease the air gap Check the level of corona treatment applied Decrease the melt temperature of the resin
	Surging	Improper design of the screw
Improper feeding of the resin in the hopper (bridging)		Lower the temperature at the feed
Voids	Resin degradation	Lower the melt temperature of the resin
	Moisture	Keep those resins which have a tendency to absorb water away from humidity Check for leaks in storage facilities and handling and transfer systems
	Dirty die	Remove any foreign material lodged within the die Clean the die

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