

# Cast Film Troubleshooting Guide

Problem	Causes(s)	Possible Solution(s)
Boggy Edges	Excessive bow	Adjust the bowed roll
Cloudy Bars	Hot melt	Decrease the barrel temperatures
	Erratic cooling	Check the air knife blower speed and adjust as necessary
Core Collapse	Warm film	Decrease the temperature on the secondary chill roll
	Tightly wound film	Decrease winder tension
	Web Shrinkage	Decrease the temperature on the secondary chill roll
Die Lines Streaks	Dirty Die	Clean die and/or die lips with copper pad or brass shim
		Increase adaptor, die temperatures and screen mesh to increase back pressure
	Damaged die lips	Change die lips
		Repair surface
Inadequate purging	Check current purging time and increase as necessary	
Edge Tearing	Extrusion temperature	Increase the extrusion temperature
	Die gap	Decrease the die gap
	Screen pack	Increase restriction
	Air gap	Increase the air gap
Excessive Neck-In	Extruder output/take up	Decrease the output and/or take up speed
	Extrusion temperature	Decrease the extrusion temperature
	Resin density	Use a resin with a lower density
	Resin melt index	Use a resin with a lower melt index
	Air gap	Decrease the air gap
Film Blocking	Extruder output/take up	Increase the output rate and/or take up speed
	Die gap	Increase the die gap
	Additives	Increase additive formulation, namely the ash level
	Extrusion temperature	Decrease extrusion temperature
	Chill roll temperature	Increase chill roll temperature
	Extruder output/take up	Decrease the output and/or the take up speed
	Winder tension	Decrease the winder tension
Film Puckering	Chill roll temperature	Increase the chill roll temperature
	Extruder output/take up	Decrease the output rate and/or take up speed
	Resin density	Use a resin with a lower density
	Resin melt index	Use a resin with a lower melt index
	Treatment level	Decrease the level of treatment
Film Striking on Chill Roll	Erratic cooling	Check the chill roll temperatures and adjust as necessary
		Check the passages
	Film Too Narrow from Chill Roll	Narrow die slot
Floppy Web	High neck-in	Adjust the edge pinners air flow and relocate pinners
	Insufficient roll tension	Increase the tension as necessary
Gauge Variation	Surging of the extruder	Check drive speed of the extruder
		Check temperature controllers
		Examine feed section housing

Problem	Causes(s)	Possible Solution(s)
Gauge Variation (cont.)	Surging of the extruder (cont.)	See if the regrind feed is force feeding the extruder (blenders)
		Check for wearing of the screw and repair/replace as necessary
		Examine the filters for possible clogging and clean/replace as necessary
	Erratic melt quality	Check and adjust temperature profiles as necessary
		Ensure proper screw design
		Check for wearing of the screw and repair/replace as necessary
		Modify screw design with static mixers to achieve homogeneity
	Die gap	Decrease the die gap
	Chill roll temperature	Decrease the chill roll temperature
	Air gap	Decrease the air gap
Screen pack	Increase restriction	
Winder tension	Increase tension of the winder	
Gels	Erratic melting and mixing	Check temperatures and adjust accordingly
		Check for wearing of the screw and repair/replace as necessary
		Check for wearing of the barrel
		Check for resin contamination and purge if necessary
Screen pack	Increase restriction	
Hard Roll	Excessive winder tension	Decrease the tension
	Excessive lay on pressure	Decrease pressure
Hazy Roll	Plate out on chill roll	Check roll temperature
		Use a vacuum box to remove excessive additives on the roll
High Coefficient of Friction	Additives	Increase additive formulation, namely the slip level
	Extrusion temperature	Decrease extrusion temperature
	Chill roll temperature	Increase the chill roll temperature
	Treatment level	Decrease the level of treatment applied to the film
	Die gap	Decrease the die gap
	Resin density	Use resin with a higher density
Low MD Elongation	Extrusion temperature	Increase extrusion temperature
Low Gloss	Extrusion temperature	Increase extrusion temperature
	Chill roll temperature	Decrease the chill roll temperature
	Screen pack	Increase restriction
	Resin density	Use a resin with a higher density
	Resin melt index	Use a resin with a higher melt index
	Die gap	Decrease the die gap
Low Stiffness	Additives	Decrease the additive formulation
	Resin density	Use a resin with a higher density
	Chill roll density	Increase the chill roll temperature
Low MD Tear Strength	Air gap	Increase the air gap
	Resin density	Use a resin with a lower density
	Chill roll temperature	Increase the chill roll temperature
Low MD Tear Strength	Extrusion temperature	Decrease the extrusion temperature
	Air gap	Decrease the air gap
	Resin density	Use a resin with a lower density
	Chill roll temperature	Increase the chill roll temperature

Problem	Causes(s)	Possible Solution(s)
Low MD Tear Strength (cont.)	Extruder output/take up	Increase output and/or take up speed
	Resin melt index	Use a resin with a lower melt index
Low MD Tensile Strength	Extrusion temperature	Decrease extrusion temperature
	Chill roll temperature	Increase the chill roll temperature
	Resin density	Use a resin with a higher density
	Die gap	Decrease die gap
	Extruder output/take up	Increase output and/or take up speed
Poor Barrier Properties	Resin density	Use a resin with a higher density
	Chill roll temperature	Increase the chill roll temperature
	Extrusion temperature	Decrease extrusion temperature
	Air gap	Increase the air gap
	Screen pack	Increase restriction
Poor Haze	Extrusion temperature	Increase extrusion temperature
	Chill roll temperature	Decrease chill roll temperature
	Screen pack	Increase restriction
	Resin melt index	Use resin with a higher melt index
	Die gap	Increase the die gap
	Air gap	Increase the air gap
Poor Heat Seal	Resin density	Use resin with a higher density
	Treatment level	Decrease the level of treatment being used
	Resin melt index	Use a resin with a lower melt index
	Additives	Decrease the additives formulation
Poor Impact	Resin density	Use a resin with a lower density
	Resin melt index	Use a resin with a lower melt index
	Chill roll temperature	Decrease the chill roll temperature
	Die gap	Decrease the die gap
	Screen pack	Increase restriction
Poor Transparency	Extrusion temperature	Increase the extrusion temperature
	Chill roll temperature	Decrease the chill roll temperature
	Screen pack	Increase restriction
	Die gap	Decrease die gap
	Air gap	Decrease air gap
Scratches	Rolls not turning	Check the drag
		Check the roll speed and adjust accordingly
		Check the balance
Shark Skin	Low melt temperature	Increase melt temperature
	Narrow die gap	Apply heat to the die lips
Soft Roll	Insufficient winding tension	Increase the gap
		Increase the tension
		Decrease the taper