PLASTICS ENGINEERING COMPANY
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Troubleshooting Guide for TRANSFER MOLDING BMC

PROBLEM / CORRECTIONS	Mold Temperature	Transfer Pressure	Rate of Ejection	Clamp Pressure	Charge Weight	Cure Time	Refer to Comment Sheet
Crazing/ Cracking	4I		3D				1A,2B,5C,6E,7F
Contamination							1G,2H,3J
Dieseling		2D					1K,3L,4M,5N
Drag Marks							1P,2A,3R
Dull Appearance	1I	2I					3S,4T
Flash - Excessive	3I	1D		5I	2D		4U
Flow Lines	2D	1I					3E
Knit Lines	3D	1I					2E
Laking	5I	4I		1I			2V,3W,6U
Nonfills or Short Shots	3D	2I			1I		4X
Pin Cracking	4I		1D			5I	2A,3R,6M,7Y
Pre Cure	2D	1I					
Scumming	3I	5I		1I			2W,4E
Part Shrinkage - Excessive	2I	1I				4I	3X
Part Shrinkage - Insufficient	1D					3D	2X
Sink Marks	2I	3I			1I		4X
Sticking in Mold	2I				3D	5I	1Z,4S
Trapped Gas	4D	3D		5D			1CC,2X,6AA
Warpage When Ejected							1Z,2S,3BB
Warpage After Cooling	1I	2D				4I	3X,5F,6E

Legend: Number = Priority I = Increase D = Decrease Other Letters = Comment ID

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Comment Sheet for TRANSFER MOLDING BMC

A. Check mold for back draft or undercuts and remove them .

B. Eliminate any sharp transitions from thick to thin cross sections.

C. Allow the parts to cool at a controlled uniform rate.

E. Increase the size of the gate and relocate it.

F. Use shrink fixtures to hold the parts flat as they cool.

G. Checked all unmolded material for foreign matter and if possible remove it. If it can't be removed, quarantine the remaining material.

H. Check all equipment used in molding the material for potential sources of contamination and remove them.

J. Check for air borne particulates from other processes and eliminate their source.

K. If mold is vacuum vented, check system to insure that it is pulling a minimum of 21" of Hg in the mold. If not resolve problem with vacuum system.

L. Increase the mold temperature and if that does not resolve the problem try decreasing it. .

M. Vent the ejector pins.

N. Vacuum vent the tool.

P. Check parallelism of ejector system and repair as needed.

R. Check mold for the amount of draft and increase if necessary.

S. Check the condition of the mold plating and re-plate if necessary. If the mold is unplated, polishing or polishing and plating may be necessary.

T. Polish the mold.

U. Check the parting line for wear or damage and repair as needed.

V. Verify the correct charge weight is being used and change as needed.

W. Verify that clamp pressure is maintained on the mold during the entire cycle and correct as needed.

X. Check the vents and correct as needed. (See Section #23 "Thermoset Transfer Mold Design Tips")

Y. Relocate ejector pins or increase the diameter and/or number of pins.

Z. Check mold for wear and correct as needed.

AA. Increase the gate and runner size.

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BB. Add undercuts to hold the parts in the movable half of the mold until they are ready to be ejected.

CC. If mold is vacuum vented, check if system is pulling a minimum of 21" Hg in the mold. If not, resolve problem with vacuum system

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This information is suggested as a guide to those interested in processing Plenco Thermoset molding materials. The information presented is for your evaluation and may or may not be compatible for all mold designs, runner systems, press configurations, and material rheology. Please feel free to call Plenco with any questions about PLENCO molding materials or processing, a Technical Service Representative will assist you.