

XPS Turbo-ScrewsTM Process Production Data – Table 2

Case #		“ C ”		“ D ”	
End Product		0.060”-0.200” p/s sheet (1.5mm~5mm) for food containers		0.060”-0.200” p/s sheet (1.5mm~5mm) for food containers	
Product Specs		0.170” thick @ 5.04 lb/ft ³ density 4.3 mm thickness @ 80.7 Kg/m ³		0.108” thick @ 3.54 lb/ft ³ density 2.75 mm thickness @ 56.7 Kg/m ³	
Tandem Foam Extruder Size*		4.50” – 6.00” 114mm x 152mm		4.50” – 6.00” 114mm x 152mm	
* no gear pumps required or used					
Production Performance Comparison:		Conventional Extruder Screws	<i>Turbo-ScrewsTM</i>	Conventional Extruder Screws	<i>Turbo-ScrewsTM</i>
System Output	Lb/hr (Kg/hr)	830 (377)	1,437 (652)	1,015 (461)	1,735 (789)
	% Increase with Turbo-ScrewsTM	—	↑ 73.1%	—	↑ 70.9%
Secondary Screw Speed (rev/min)		16.5	19.4	18.5	24.0
Secondary Barrel ΔP psig (Inlet – discharge) (bar)		1,110 (76)	1,410 (97)	1,800 (124)	1,100 (76)
Secondary Inlet Temp °F (°C)		433 °F (223)	414 °F (212)	417 °F (214)	427 °F (219)
Secondary Outlet Temp °F (°C)		289 °F (143)	291 °F (144)	285 °F (141)	287 °F (142)
Secondary Drive Power (horsepower / lb / hr)		0.0775	0.0475	0.0494	0.0426
Throughput Efficiency (lbs / hr / in ² of barrel bore area)		0.235	0.408	0.288	0.492

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