FIG 1

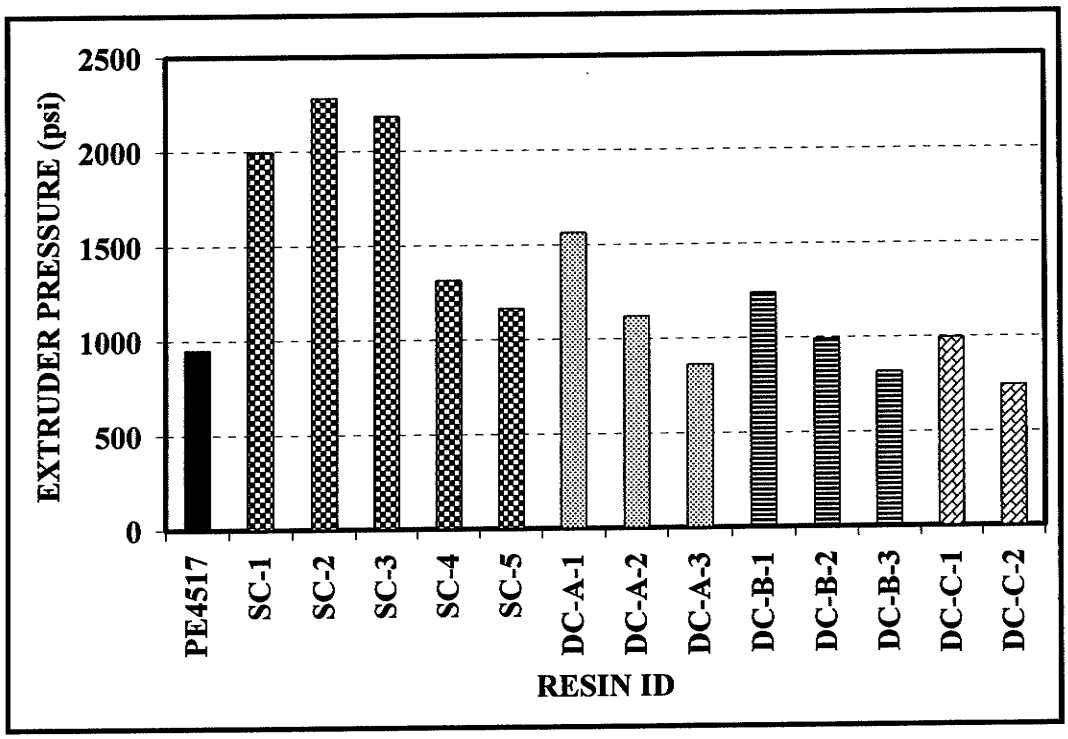

EXTRUDER PRESSURE (psi)
2500
2000
1500
1000
500
0
PE4517
SC-1
SC-2
SC-3
SC-4
SC-5
DC-A-1
DC-A-2
DC-A-3
DC-B-1
DC-B-2
DC-B-3
DC-C-1
DC-C-2
RESIN ID

FIG 2

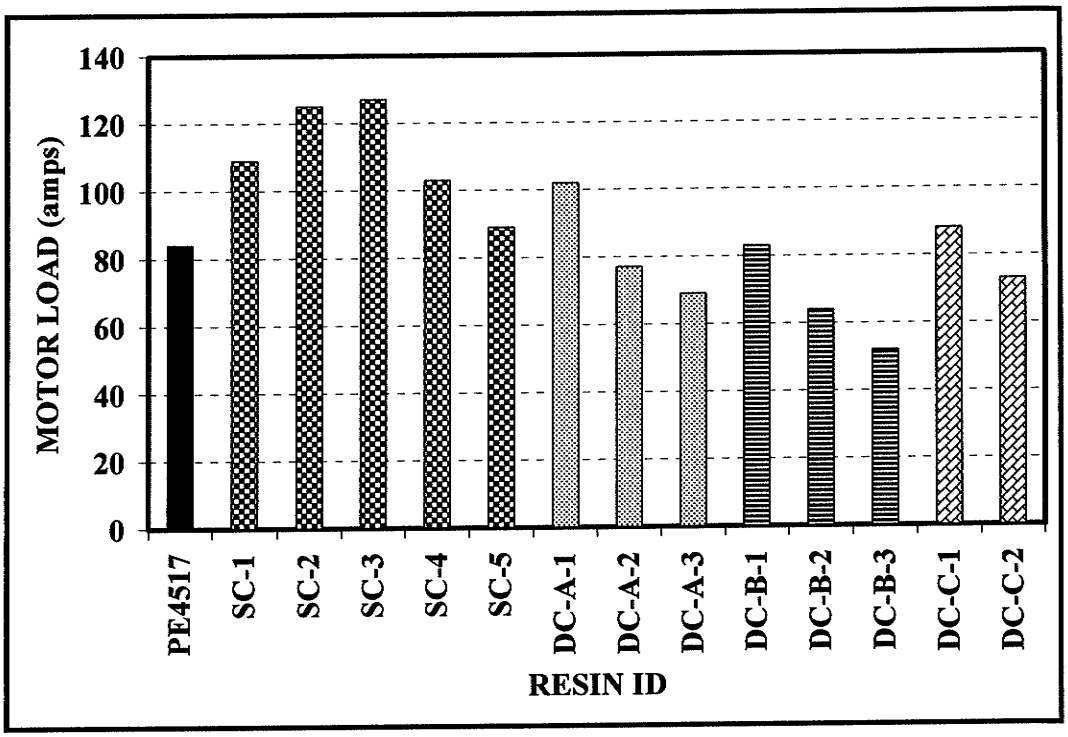

MOTOR LOAD (amps)
140
120
100
80
60
40
20
0
PE4517
SC-1
SC-2
SC-3
SC-4
SC-5
DC-A-1
DC-A-2
DC-A-3
DC-B-1
DC-B-2
DC-B-3
DC-C-1
DC-C-2
RESIN ID

FIG 3

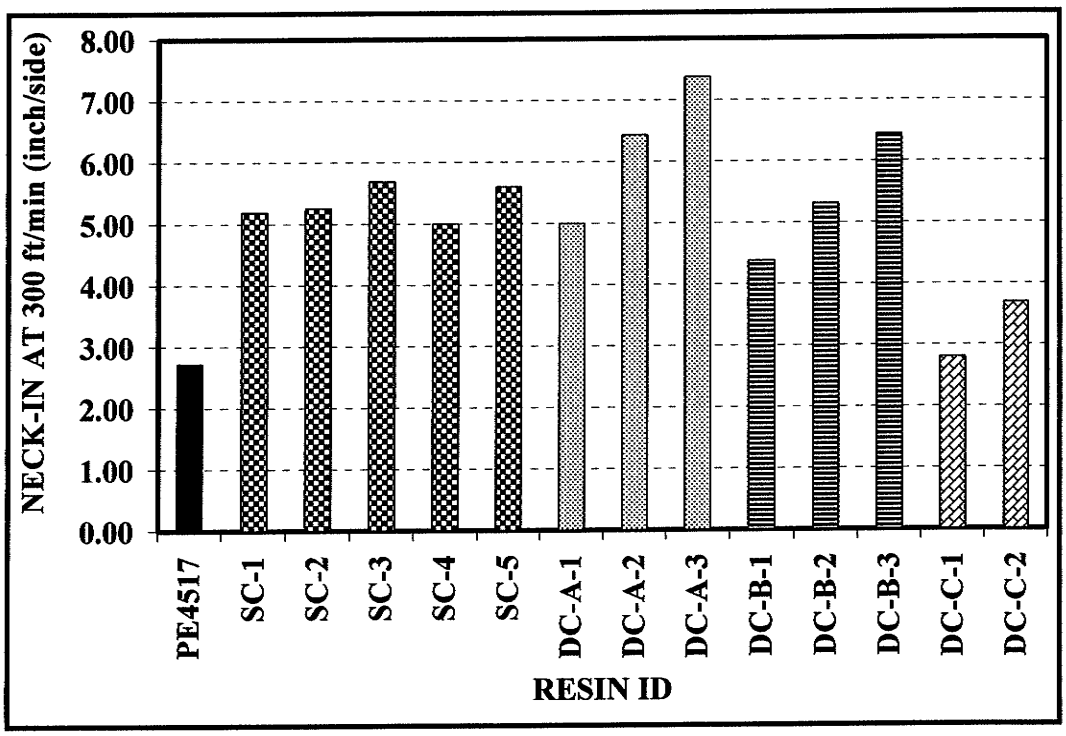

NECK-IN AT 300 ft/min (inch/side)
8.00
7.00
6.00
5.00
4.00
3.00
2.00
1.00
0.00
PE4517
SC-1
SC-2
SC-3
SC-4
SC-5
DC-A-1
DC-A-2
DC-A-3
DC-B-1
DC-B-2
DC-B-3
DC-C-1
DC-C-2
RESIN ID

FIG 4

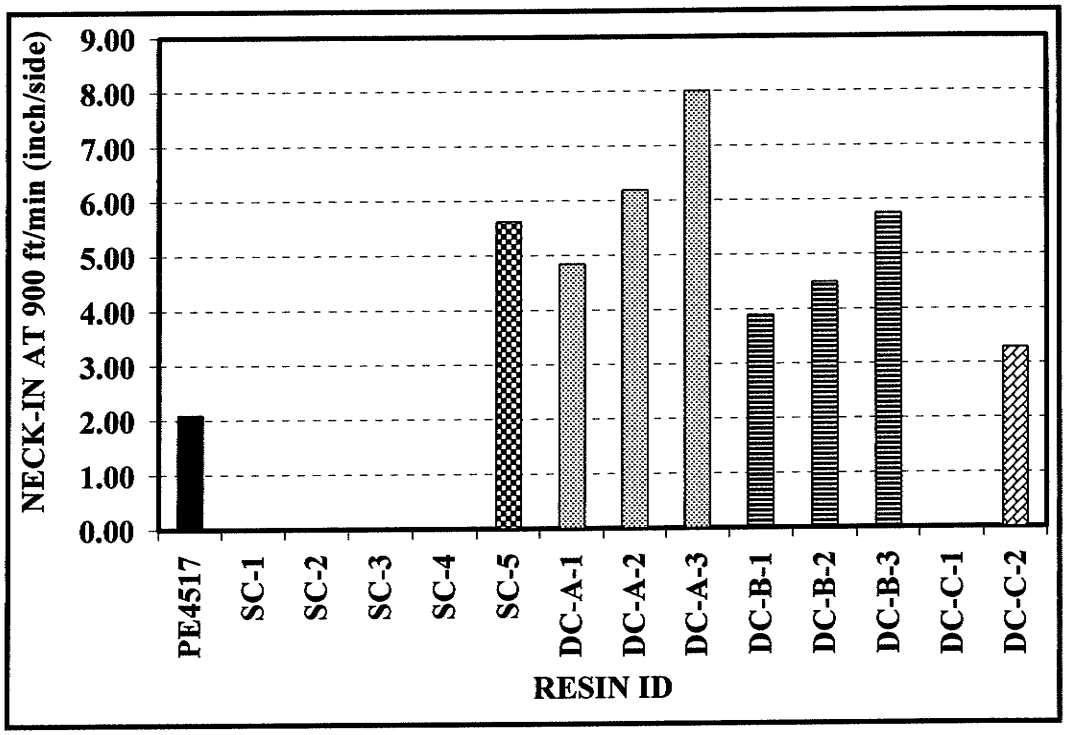
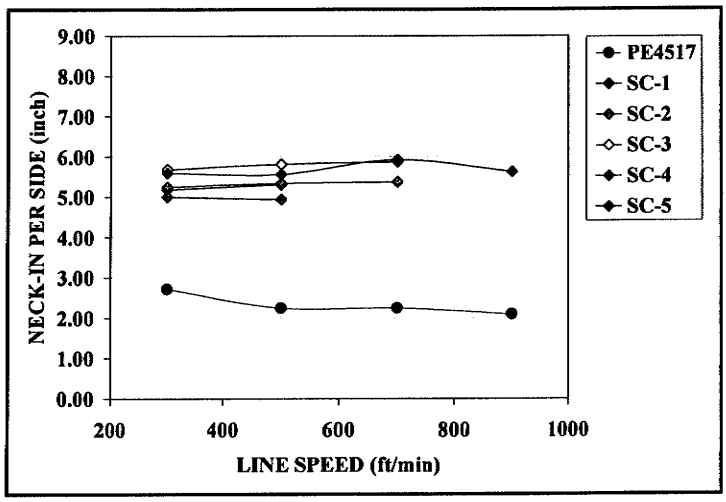
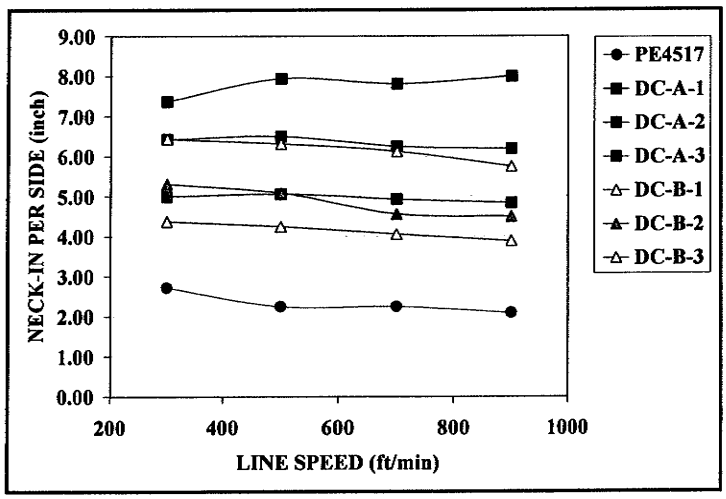

NECK-IN AT 900 ft/min (inch/side)
9.00
8.00
7.00
6.00
5.00
4.00
3.00
2.00
1.00
0.00
PE4517
SC-1
SC-2
SC-3
SC-4
SC-5
DC-A-1
DC-A-2
DC-A-3
DC-B-1
DC-B-2
DC-B-3
DC-C-1
DC-C-2
RESIN ID

FIG 5


NECK-IN PER SIDE (inch)
9.00
8.00
7.00
6.00
5.00
4.00
3.00
2.00
1.00
0.00
200
400
600
800
1000
LINE SPEED (ft/min)
PE4517
SC-1
SC-2
SC-3
SC-4
SC-5


NECK-IN PER SIDE (inch)
9.00
8.00
7.00
6.00
5.00
4.00
3.00
2.00
1.00
0.00
200
400
600
800
1000
LINE SPEED (ft/min)
PE4517
DC-A-1
DC-A-2
DC-A-3
DC-B-1
DC-B-2
DC-B-3

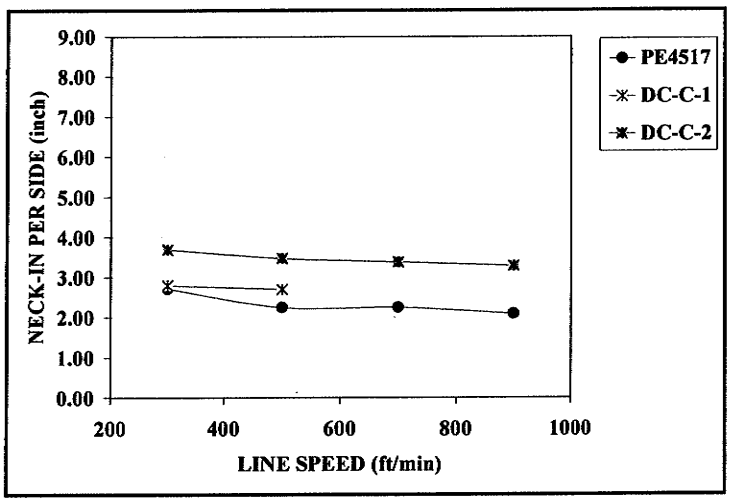

NECK-IN PER SIDE (inch)
9.00
8.00
7.00
6.00
5.00
4.00
3.00
2.00
1.00
0.00
200
400
600
800
1000
LINE SPEED (ft/min)
PE4517
DC-C-1
DC-C-2

FIG 6

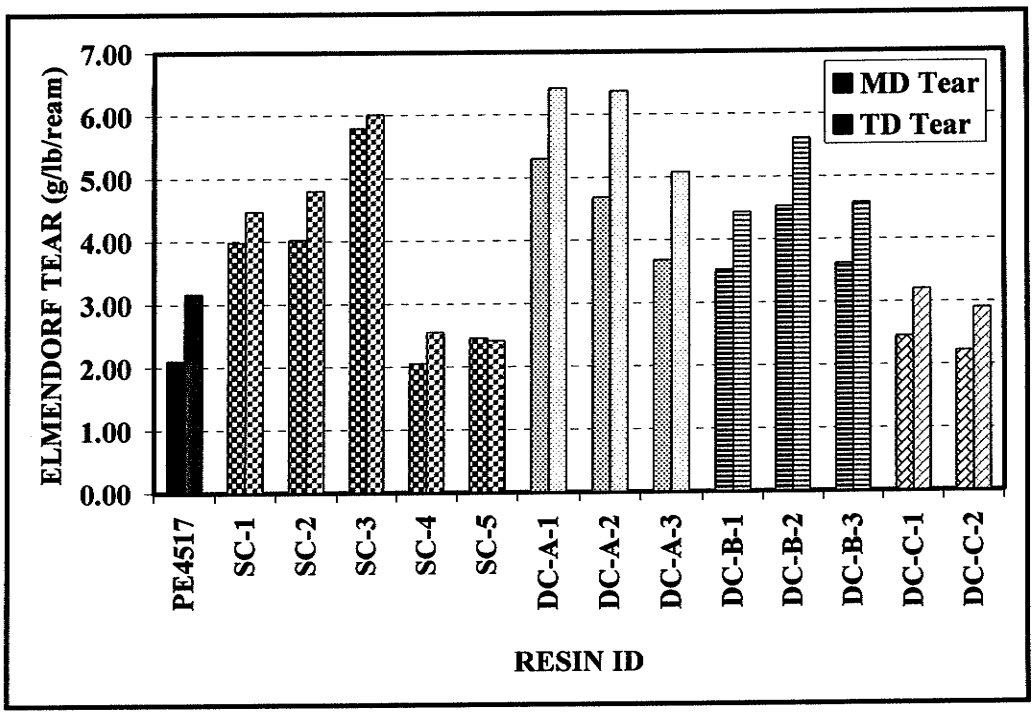

ELMENDORF TEAR (g/lb/ream)
7.00
6.00
5.00
4.00
3.00
2.00
1.00
0.00
MD Tear
TD Tear
PE4517
SC-1
SC-2
SC-3
SC-4
SC-5
DC-A-1
DC-A-2
DC-A-3
DC-B-1
DC-B-2
DC-B-3
DC-C-1
DC-C-2
RESIN ID

FIG 7

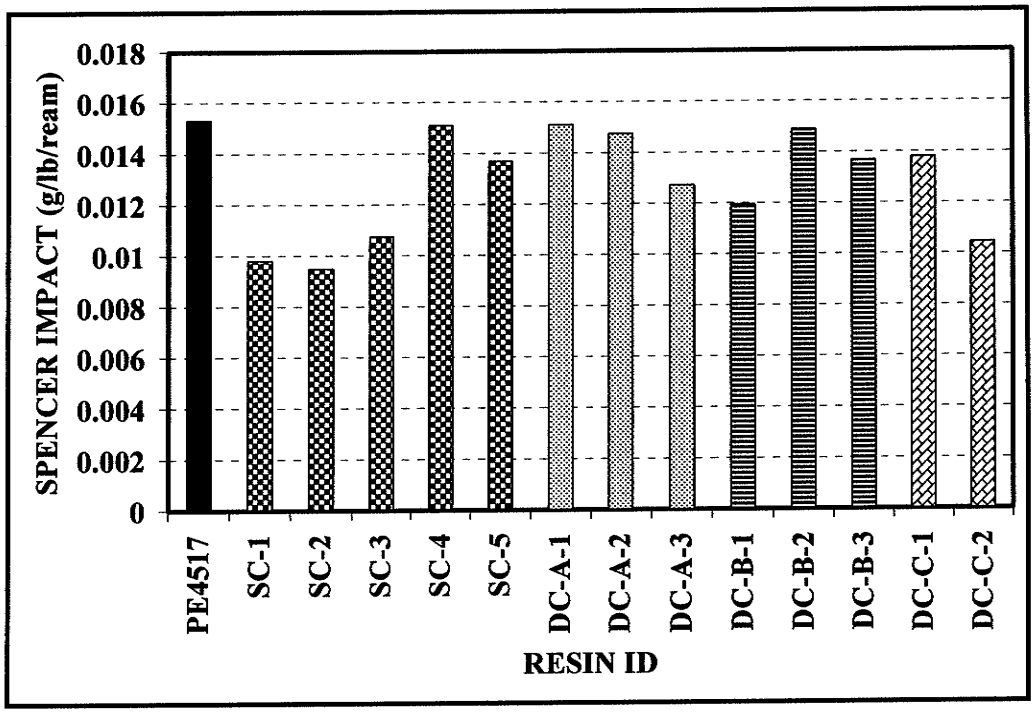

SPENCER IMPACT (g/lb/ream)
0.018
0.016
0.014
0.012
0.01
0.008
0.006
0.004
0.002
0
PE4517
SC-1
SC-2
SC-3
SC-4
SC-5
DC-A-1
DC-A-2
DC-A-3
DC-B-1
DC-B-2
DC-B-3
DC-C-1
DC-C-2
RESIN ID

FIG 8

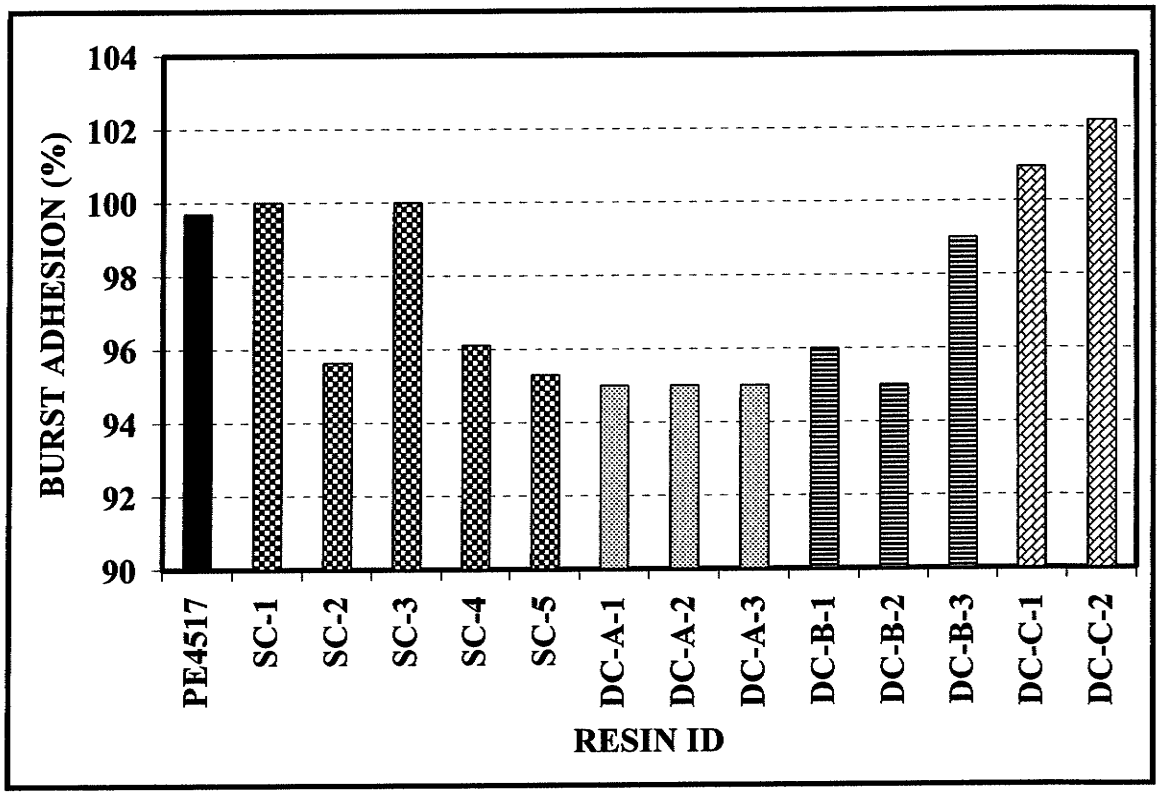

BURST ADHESION (%)
104
102
100
98
96
94
92
90
PE4517
SC-1
SC-2
SC-3
SC-4
SC-5
DC-A-1
DC-A-2
DC-A-3
DC-B-1
DC-B-2
DC-B-3
DC-C-1
DC-C-2
RESIN ID

FIG 9

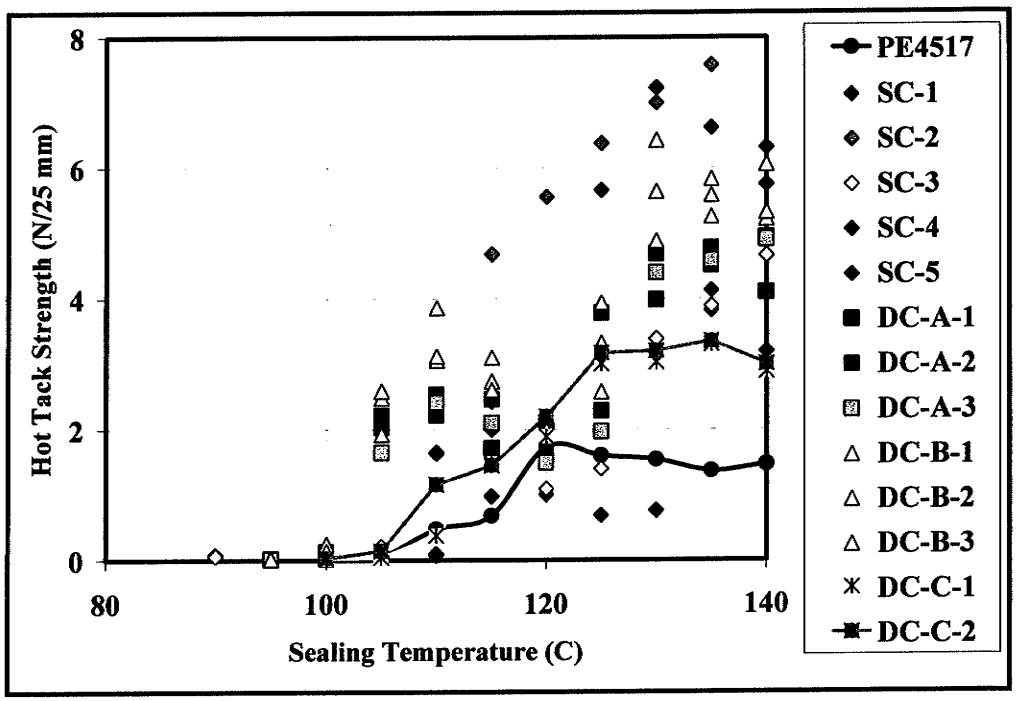

Hot Tack Strength (N/25 mm)
8
6
4
2
0
80
100
120
140
Sealing Temperature (C)
PE4517
SC-1
SC-2
SC-3
SC-4
SC-5
DC-A-1
DC-A-2
DC-A-3
DC-B-1
DC-B-2
DC-B-3
DC-C-1
DC-C-2

FIG 10

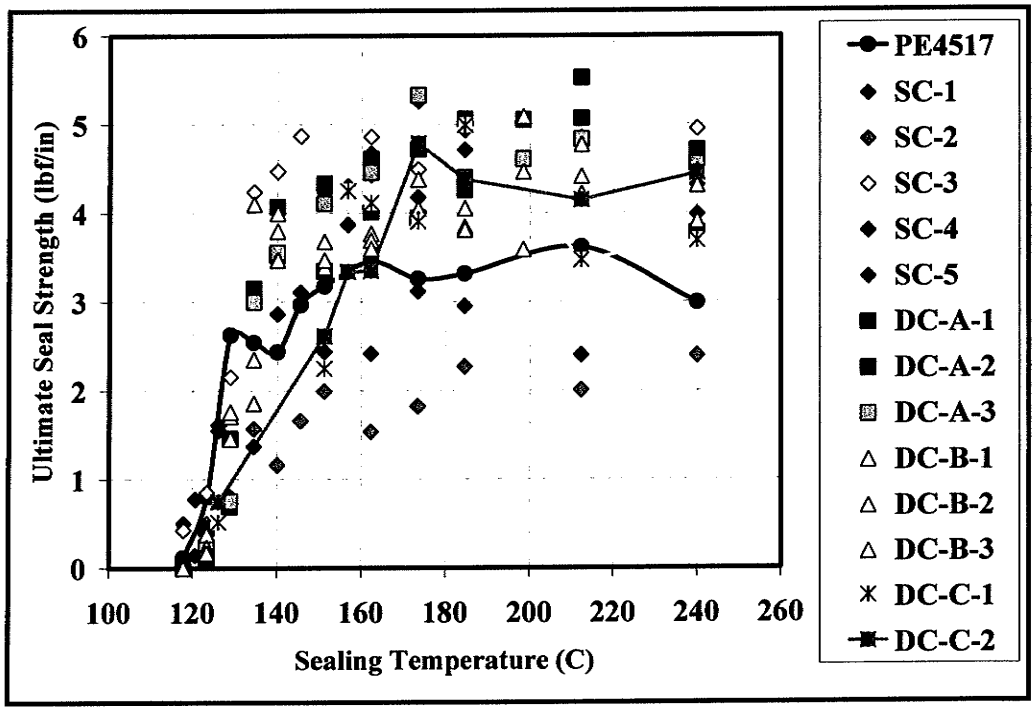

Ultimate Seal Strength (lbf/in)
0
1
2
3
4
5
6
100
120
140
160
180
200
220
240
260
Sealing Temperature (C)
PE4517
SC-1
SC-2
SC-3
SC-4
SC-5
DC-A-1
DC-A-2
DC-A-3
DC-B-1
DC-B-2
DC-B-3
DC-C-1
DC-C-2

FIG 11a

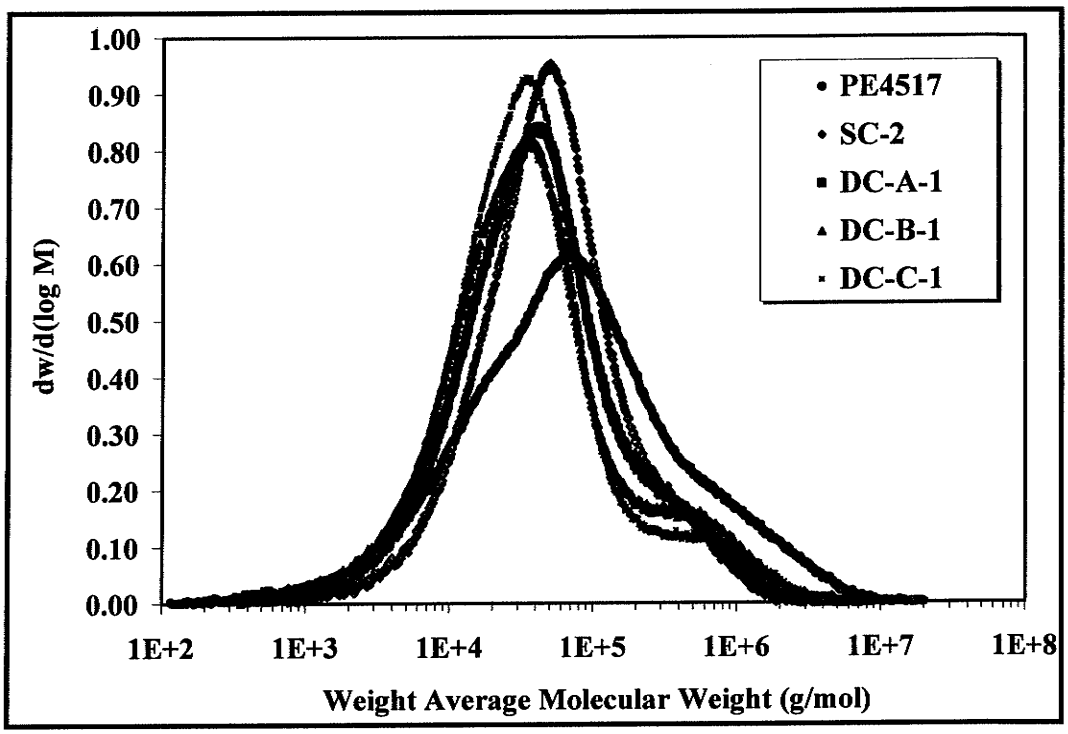

1.00
0.90
0.80
0.70
0.60
0.50
0.40
0.30
0.20
0.10
0.00
dw/d(log M)
PE4517
SC-2
DC-A-1
DC-B-1
DC-C-1
1E+2
1E+3
1E+4
1E+5
1E+6
1E+7
1E+8
Weight Average Molecular Weight (g/mol)

FIG 11b

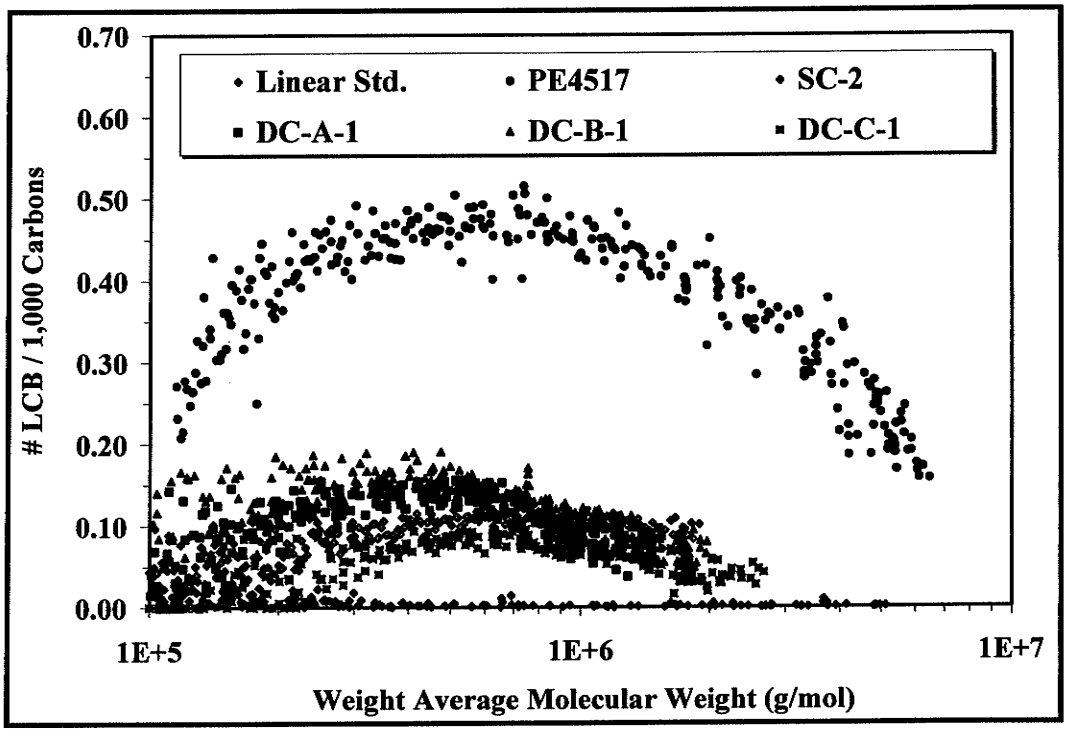

0.70
0.60
0.50
0.40
0.30
0.20
0.10
0.00
LCB / 1,000 Carbons
Linear Std.
PE4517
SC-2
DC-A-1
DC-B-1
DC-C-1
1E+5
1E+6
1E+7
Weight Average Molecular Weight (g/mol)

FIG 12a

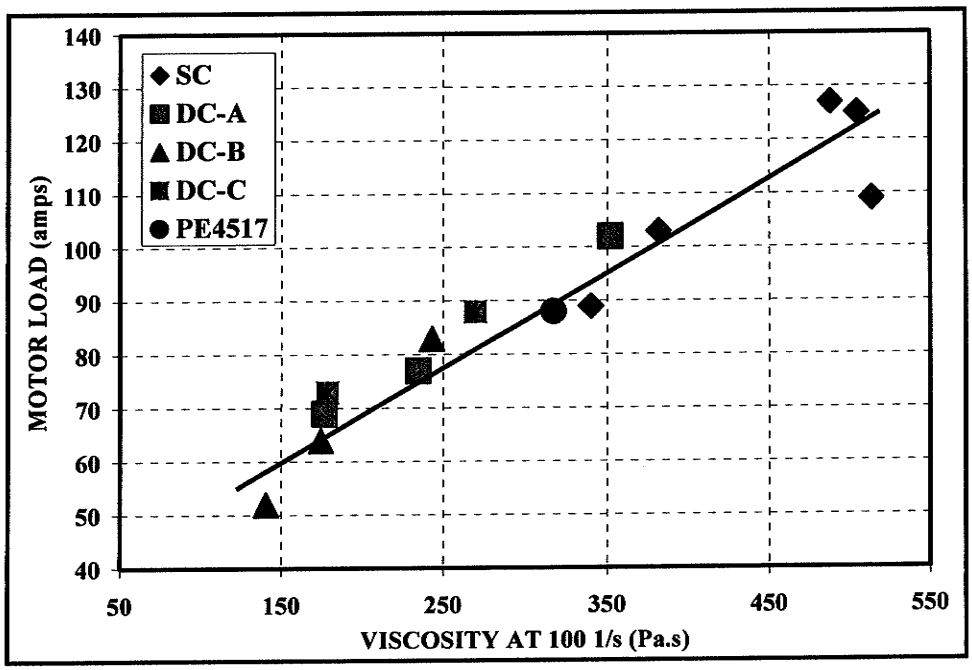

SC
DC-A
DC-B
DC-C
PE4517
MOTOR LOAD (amps)
140
130
120
110
100
90
80
70
60
50
40
50
150
250
350
450
550
VISCOSITY AT 100 1/s (Pa.s)

FIG 12b

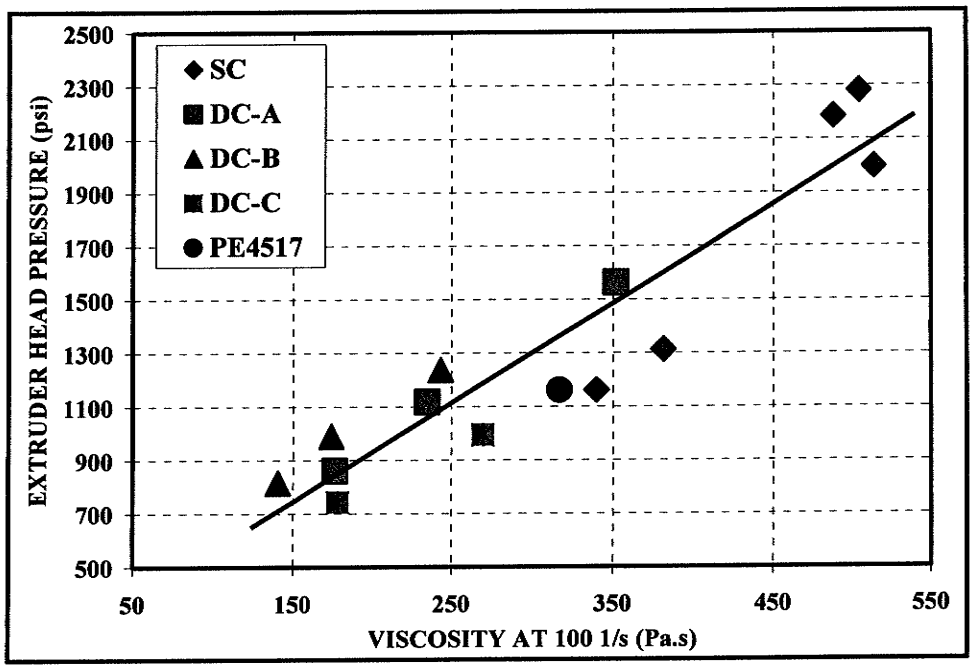

EXTRUDER HEAD PRESSURE (psi)
2500
2300
2100
1900
1700
1500
1300
1100
900
700
500
SC
DC-A
DC-B
DC-C
PE4517
50
150
250
350
450
550
VISCOSITY AT 100 1/s (Pa.s)

FIG 13a

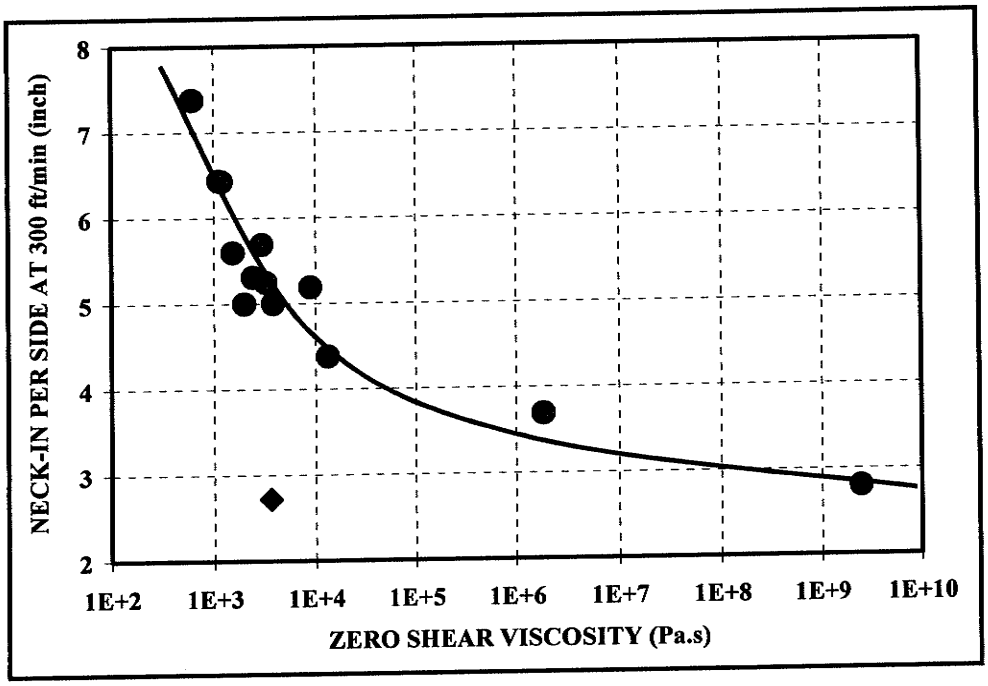

NECK-IN PER SIDE AT 300 ft/min (inch)
8
7
6
5
4
3
2
1E+2
1E+3
1E+4
1E+5
1E+6
1E+7
1E+8
1E+9
1E+10
ZERO SHEAR VISCOSITY (Pa.s)

FIG 13b

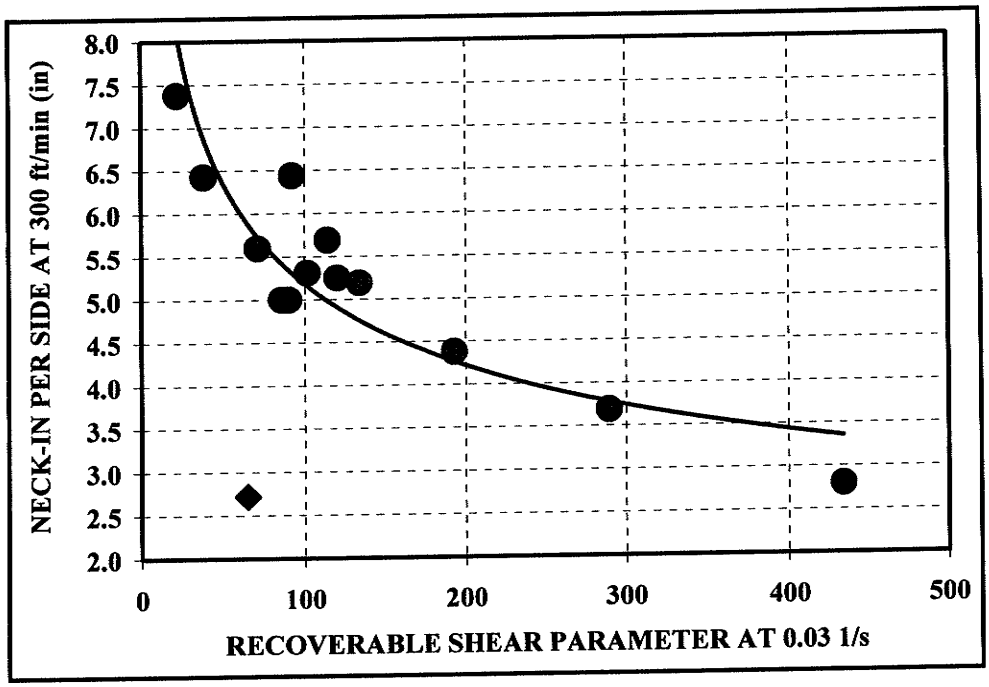
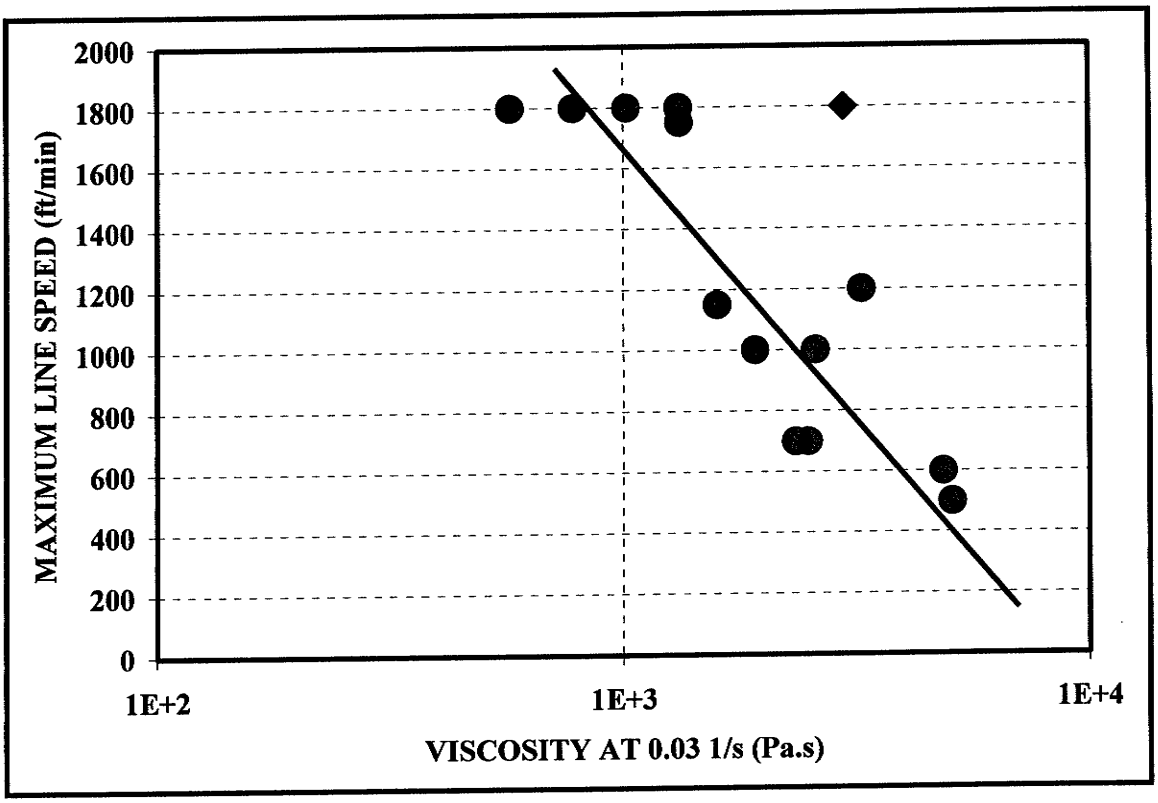

NECK-IN PER SIDE AT 300 ft/min (in)
8.0
7.5
7.0
6.5
6.0
5.5
5.0
4.5
4.0
3.5
3.0
2.5
2.0
0
100
200
300
400
500
RECOVERABLE SHEAR PARAMETER AT 0.03 1/s

FIG 14


MAXIMUM LINE SPEED (ft/min)
2000
1800
1600
1400
1200
1000
800
600
400
200
0
1E+2
1E+3
1E+4
VISCOSITY AT 0.03 1/s (Pa.s)