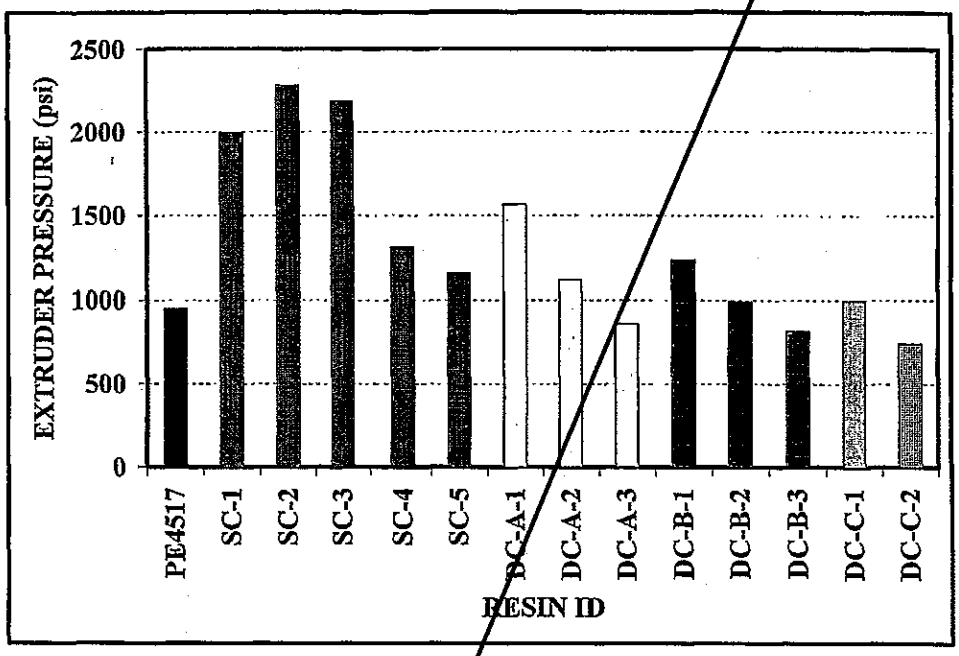
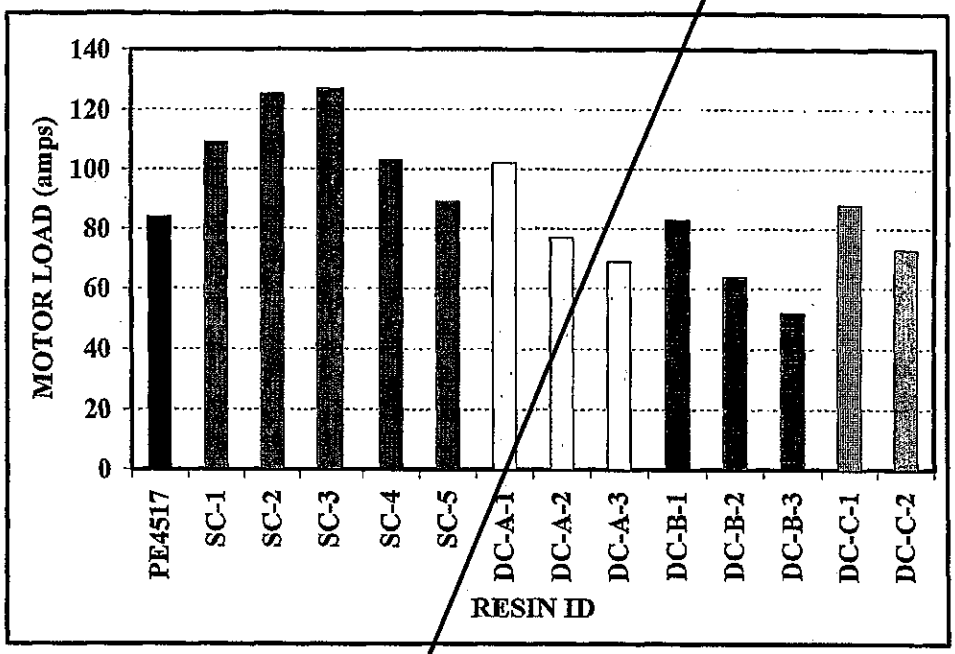
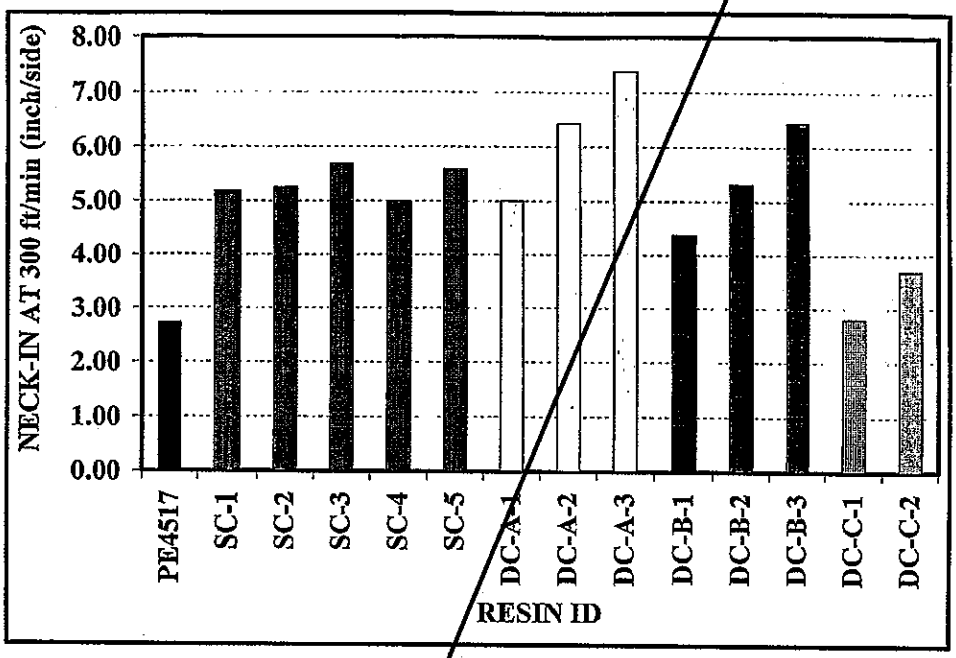
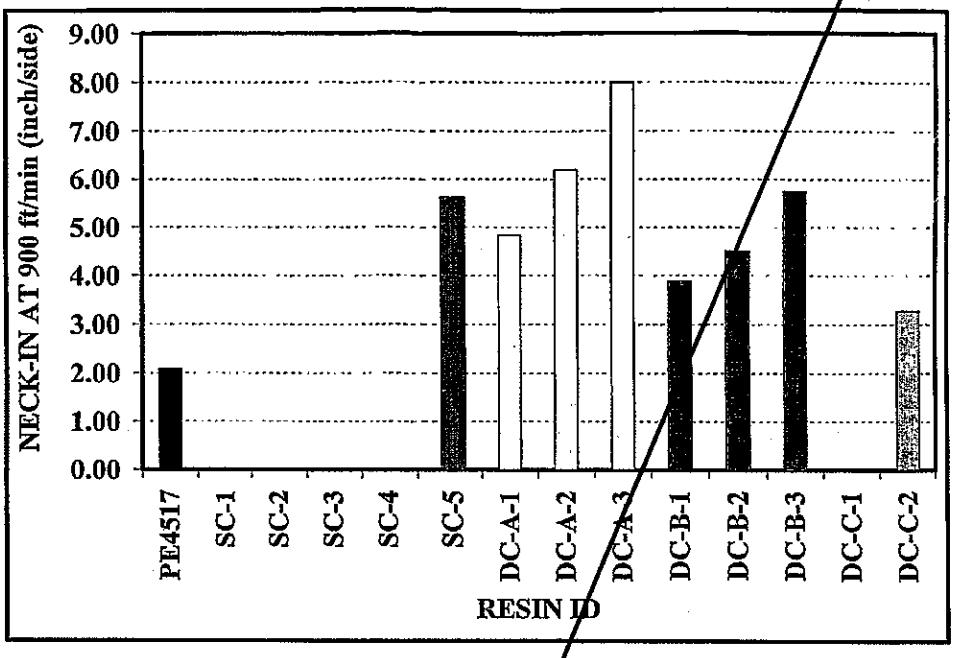
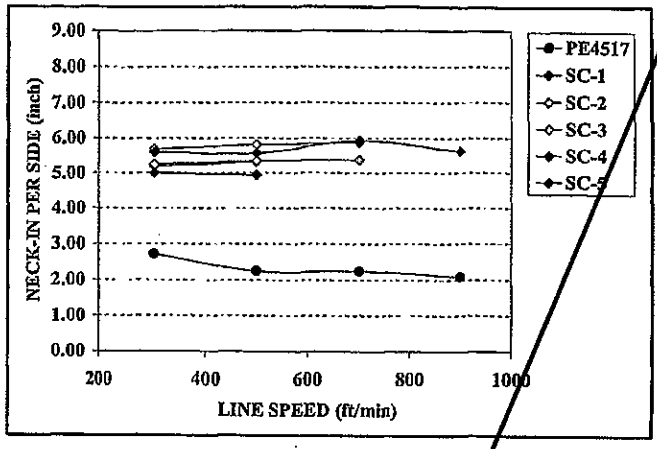
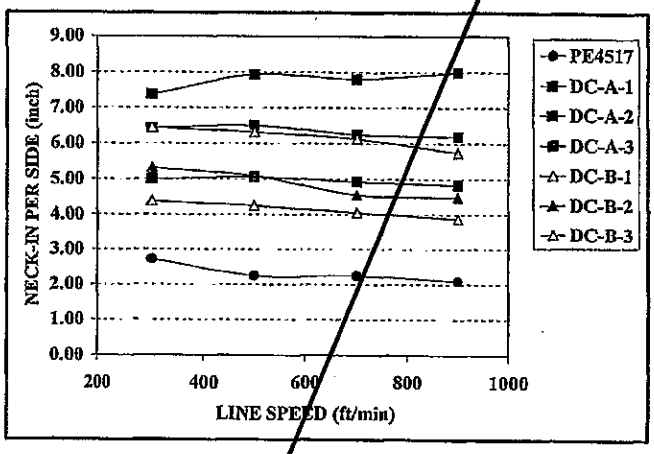

EXTRUDER PRESSURE (psi)
2500
2000
1500
1000
500
0
PE4517
SC-1
SC-2
SC-3
SC-4
SC-5
DC-A-1
DC-A-2
DC-A-3
DC-B-1
DC-B-2
DC-B-3
DC-C-1
DC-C-2
RESIN ID

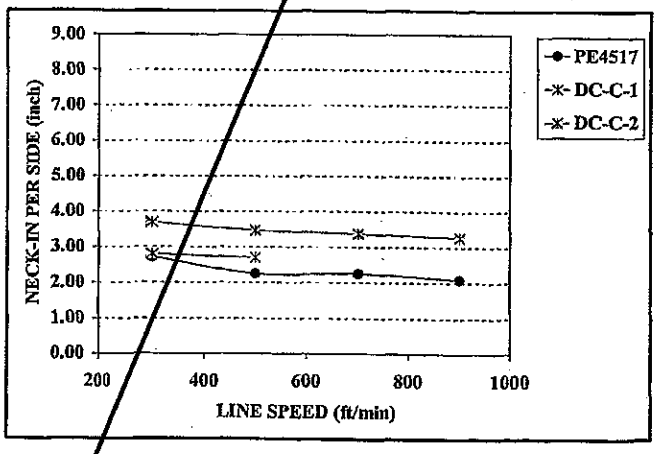

MOTOR LOAD (amps)
140
120
100
80
60
40
20
0
PE4517
SC-1
SC-2
SC-3
SC-4
SC-5
DC-A-1
DC-A-2
DC-A-3
DC-B-1
DC-B-2
DC-B-3
DC-C-1
DC-C-2
RESIN ID

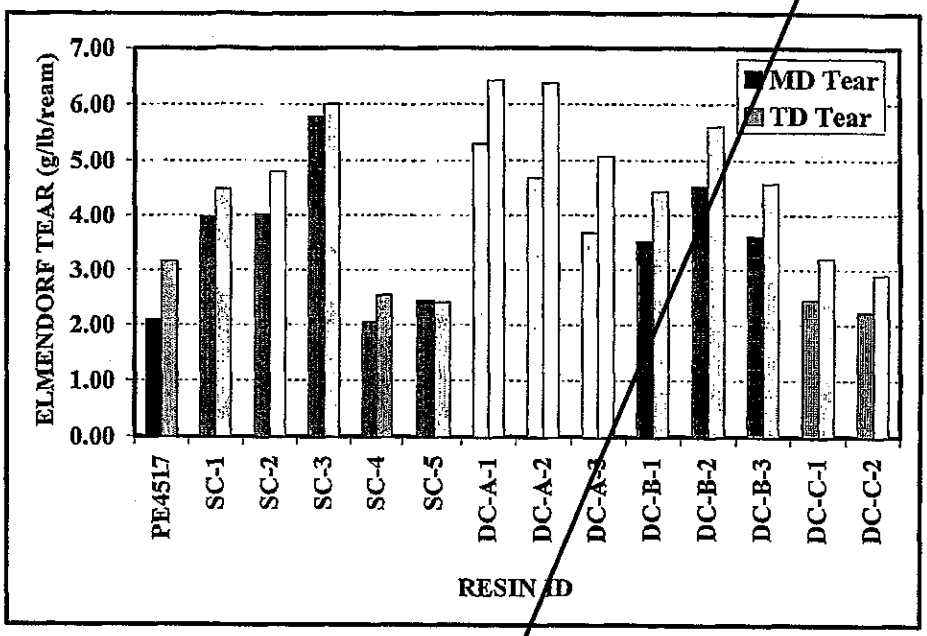

NECK-IN AT 300 ft/min (inch/side)
8.00
7.00
6.00
5.00
4.00
3.00
2.00
1.00
0.00
PE4517
SC-1
SC-2
SC-3
SC-4
SC-5
DC-A-1
DC-A-2
DC-A-3
DC-B-1
DC-B-2
DC-B-3
DC-C-1
DC-C-2
RESIN ID

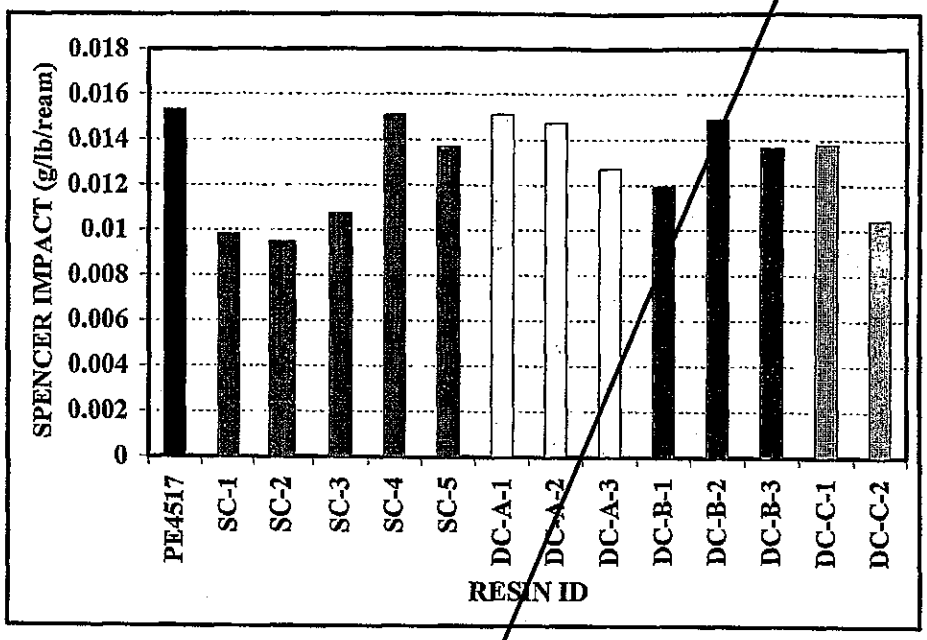

NECK-IN AT 900 ft/min (inch/side)
9.00
8.00
7.00
6.00
5.00
4.00
3.00
2.00
1.00
0.00
PE4517
SC-1
SC-2
SC-3
SC-4
SC-5
DC-A-1
DC-A-2
DC-A-3
DC-B-1
DC-B-2
DC-B-3
DC-C-1
DC-C-2
RESIN ID

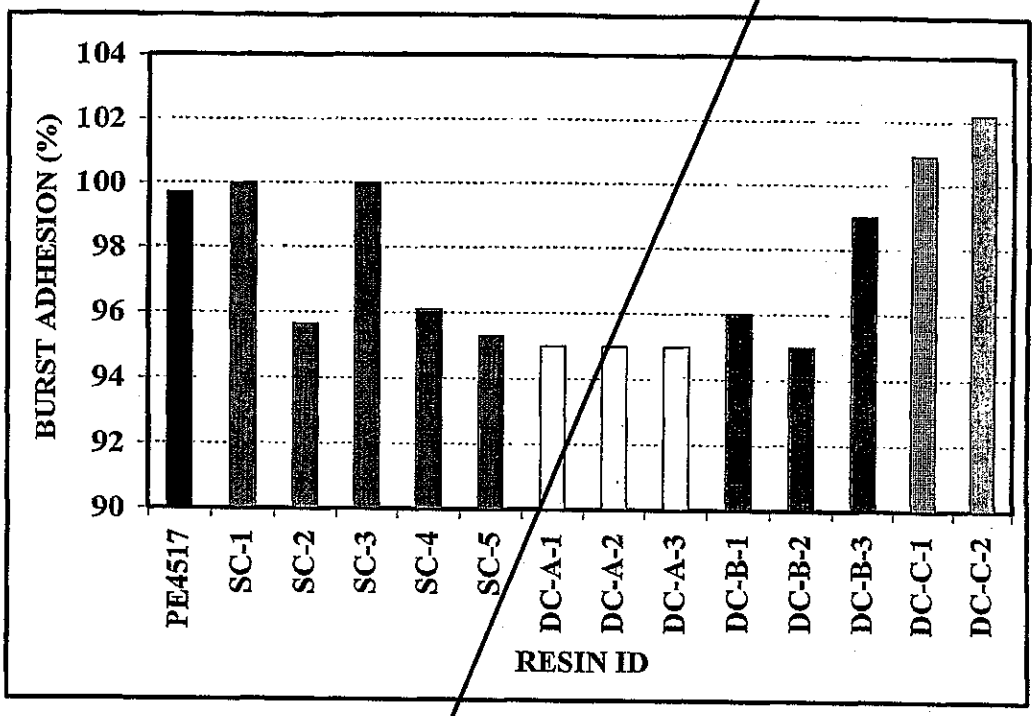

NECK-IN PER SIDE (inch)
9.00
8.00
7.00
6.00
5.00
4.00
3.00
2.00
1.00
0.00
200
400
600
800
1000
LINE SPEED (ft/min)
PE4517
SC-1
SC-2
SC-3
SC-4
SC-5

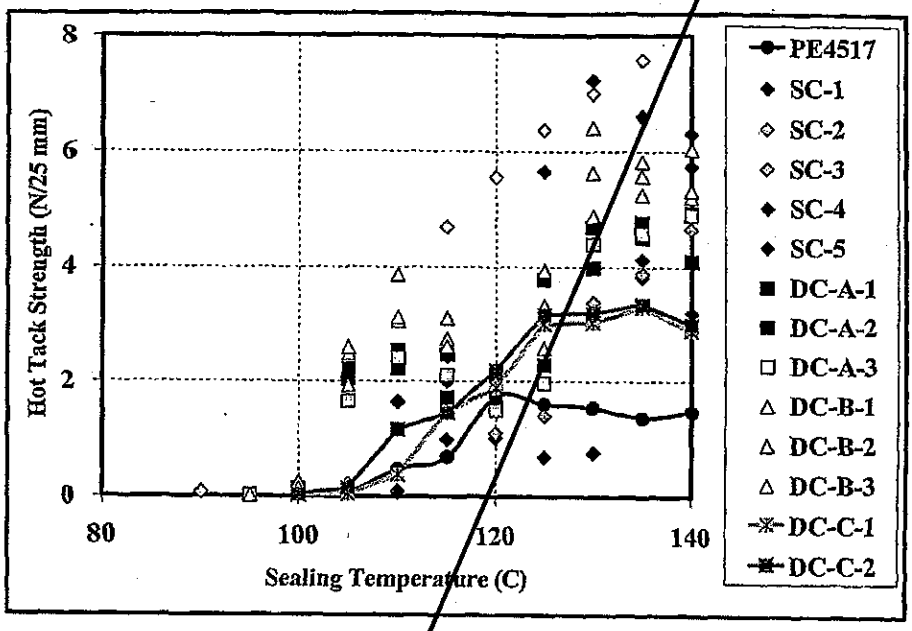

NECK-IN PER SIDE (inch)
9.00
8.00
7.00
6.00
5.00
4.00
3.00
2.00
1.00
0.00
200
400
600
800
1000
LINE SPEED (ft/min)
PE4517
DC-A-1
DC-A-2
DC-A-3
DC-B-1
DC-B-2
DC-B-3

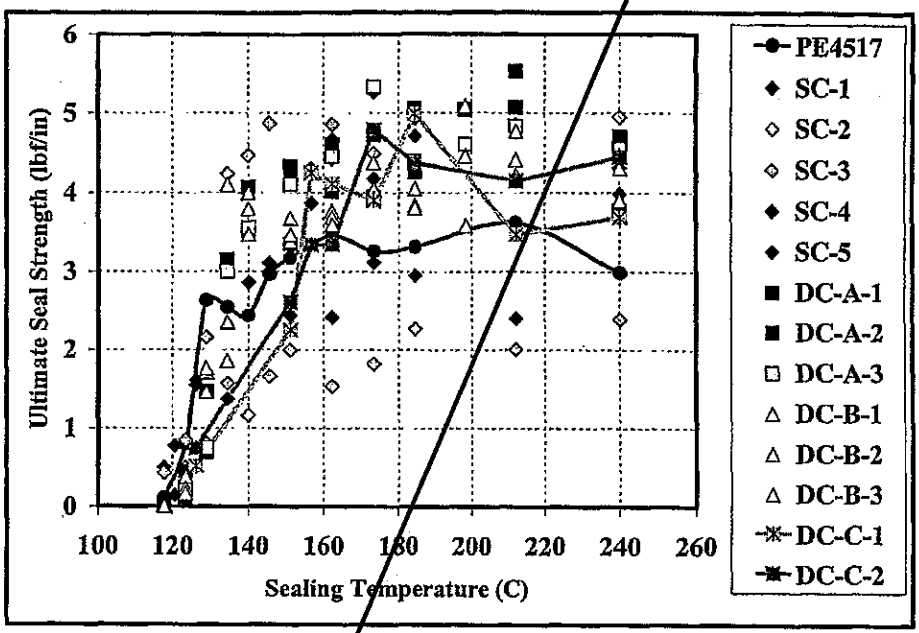

NECK-IN PER SIDE (inch)
9.00
8.00
7.00
6.00
5.00
4.00
3.00
2.00
1.00
0.00
200
400
600
800
1000
LINE SPEED (ft/min)
PE4517
DC-C-1
DC-C-2


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

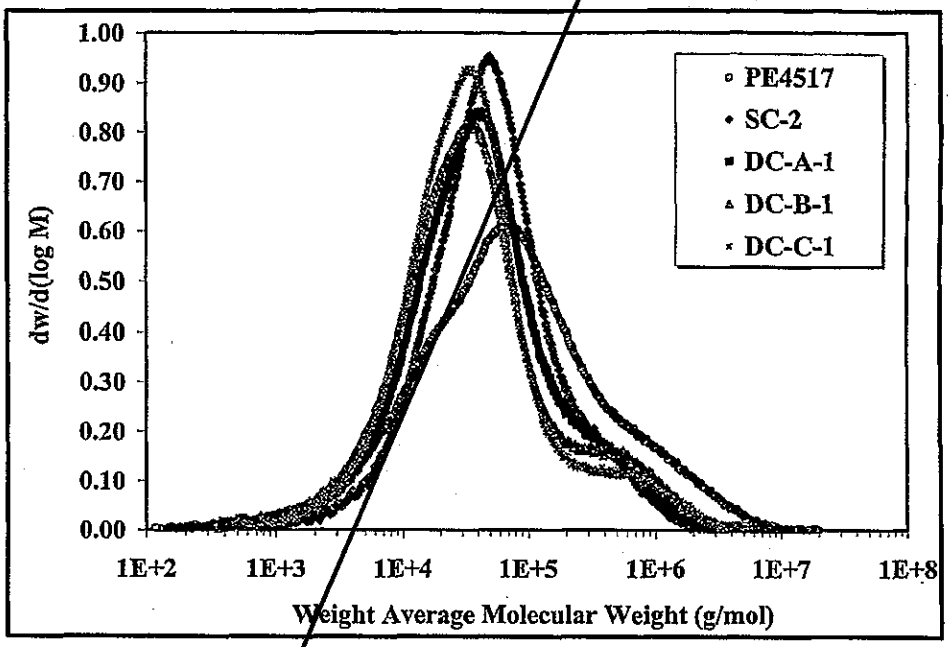

SPENCER IMPACT (g/lb/ream)
0.018
0.016
0.014
0.012
0.01
0.008
0.006
0.004
0.002
0
PE4517
SC-1
SC-2
SC-3
SC-4
SC-5
DC-A-1
DC-A-2
DC-A-3
DC-B-1
DC-B-2
DC-B-3
DC-C-1
DC-C-2
RESIN ID


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

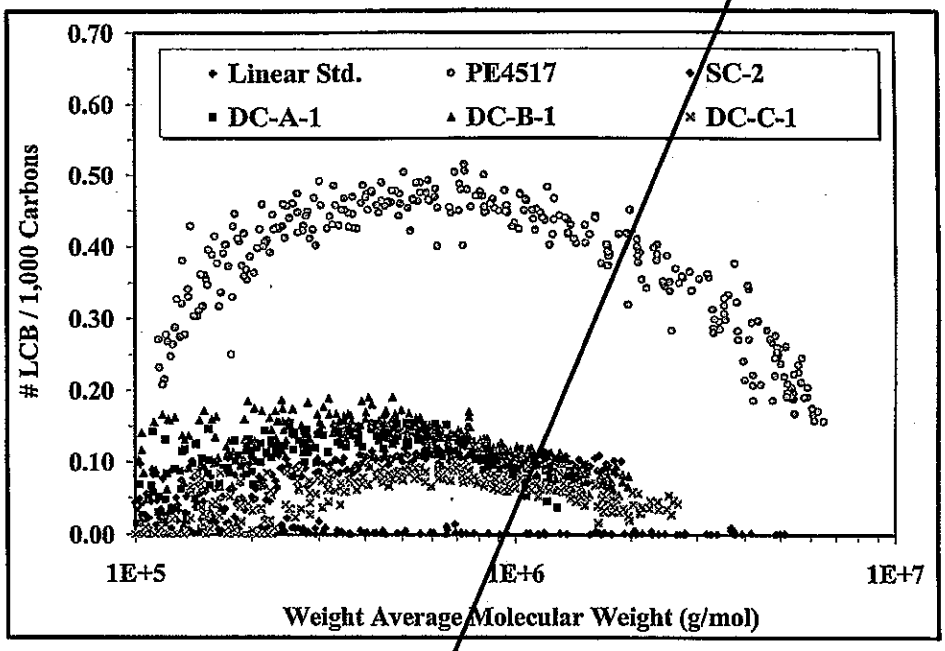

Hot Tack Strength (N/25 mm)
0
2
4
6
8
80
100
120
140
Sealing Temperature (C)
PE4517
SC-1
SC-2
SC-3
SC-4
SC-5
DC-A-1
DC-A-2
DC-A-3
DC-B-1
DC-B-2
DC-B-3
DC-C-1
DC-C-2


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

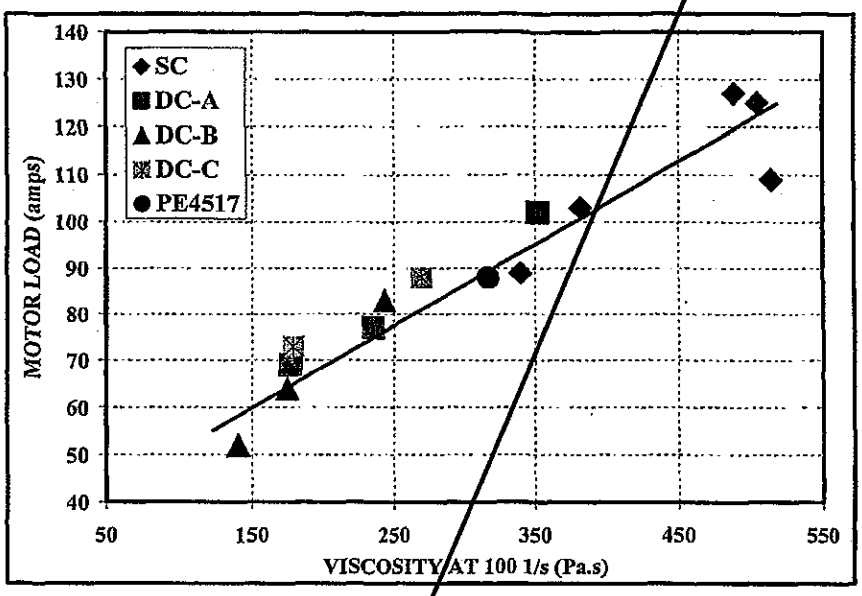
11a


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)

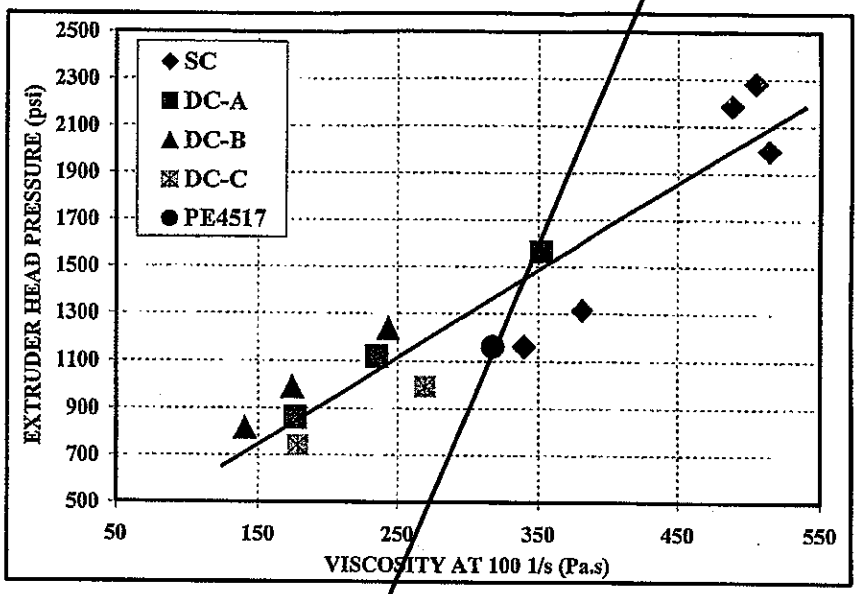
11b


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

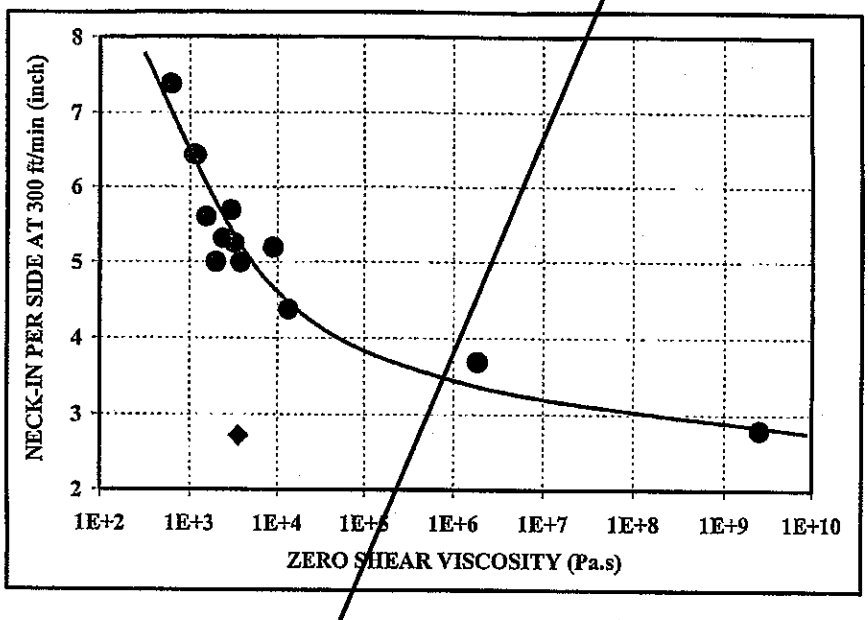
12a


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

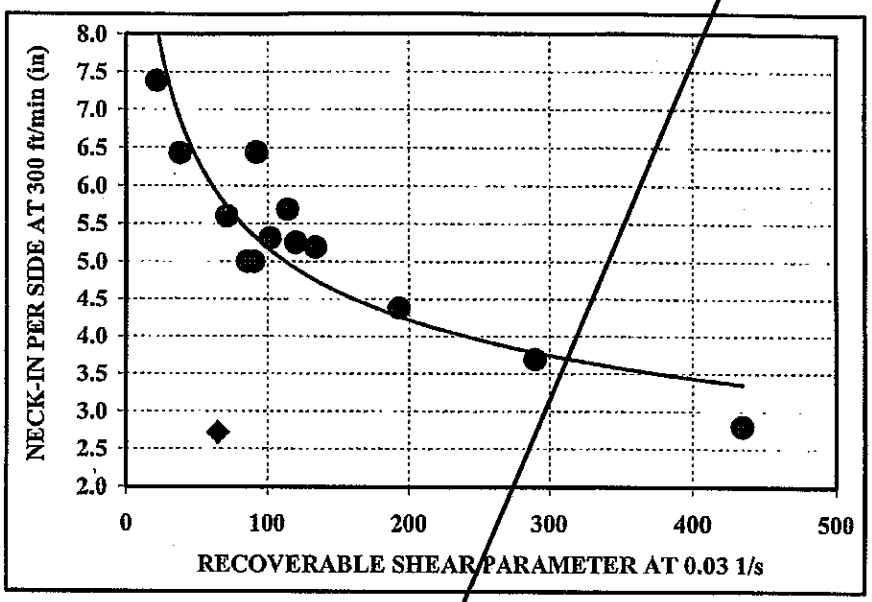
12b


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

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)

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

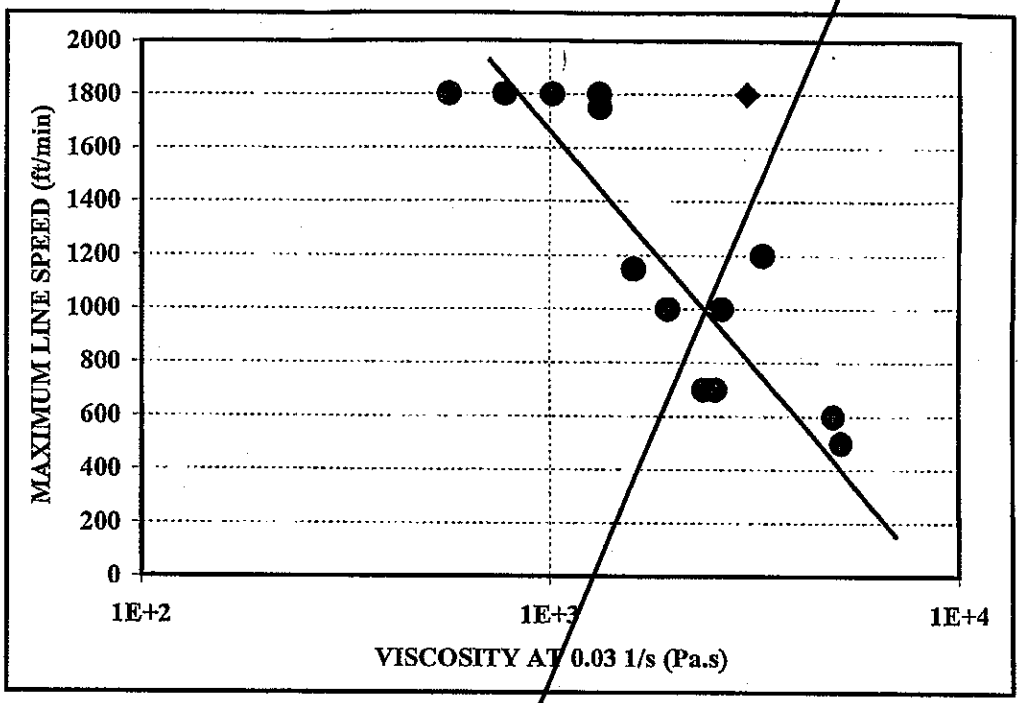

MAXIMUM LINE SPEED (ft/min)
2000
1800
1600
1400
1200
1000
800
600
400
200
0
1E+2
1E+3
1E+4
VISCOSITY AT 0.03 1/s (Pa.s)

FIG 1

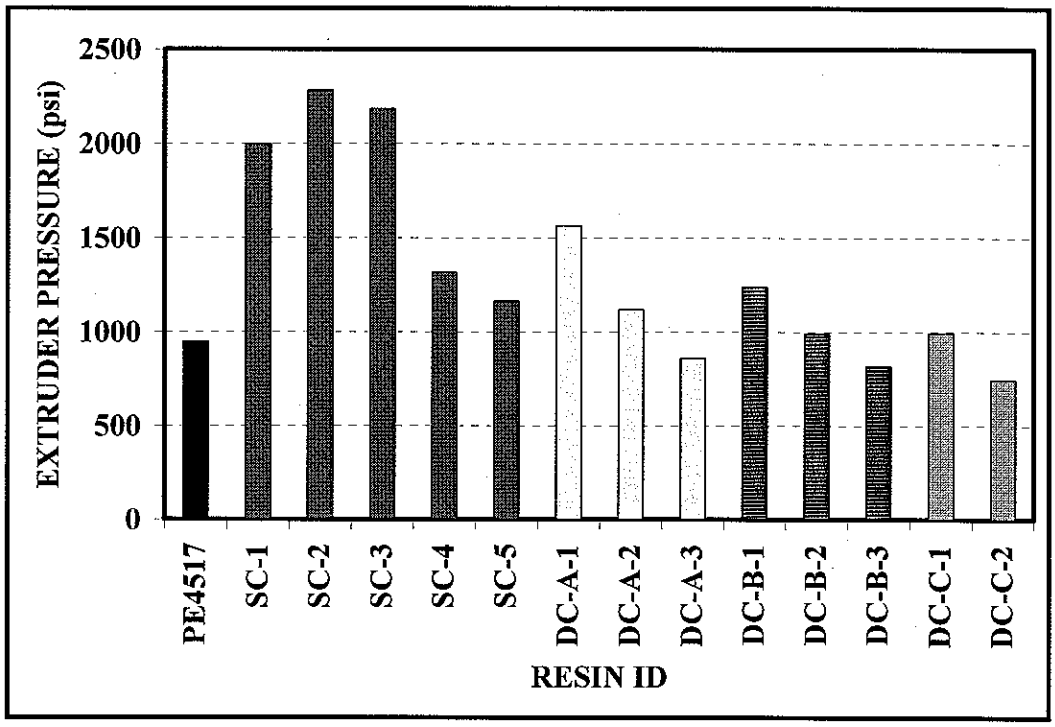

EXTRUDER PRESSURE (psi)
2500
2000
1500
1000
500
0
PE4517
SC-1
SC-2
SC-3
SC-4
SC-5
DC-A-1
DC-A-2
DC-A-3
DC-B-1
DC-B-2
DC-B-3
DC-C-1
DC-C-2
RESIN ID

FIG 2

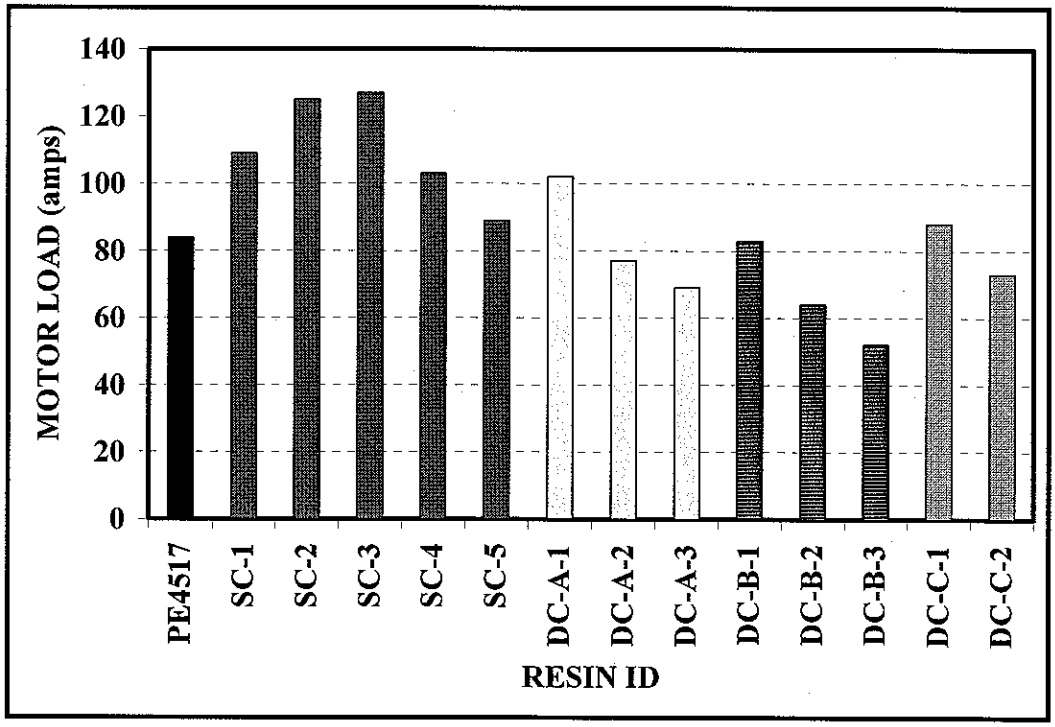

MOTOR LOAD (amps)
140
120
100
80
60
40
20
0
PE4517
SC-1
SC-2
SC-3
SC-4
SC-5
DC-A-1
DC-A-2
DC-A-3
DC-B-1
DC-B-2
DC-B-3
DC-C-1
DC-C-2
RESIN ID

FIG 3

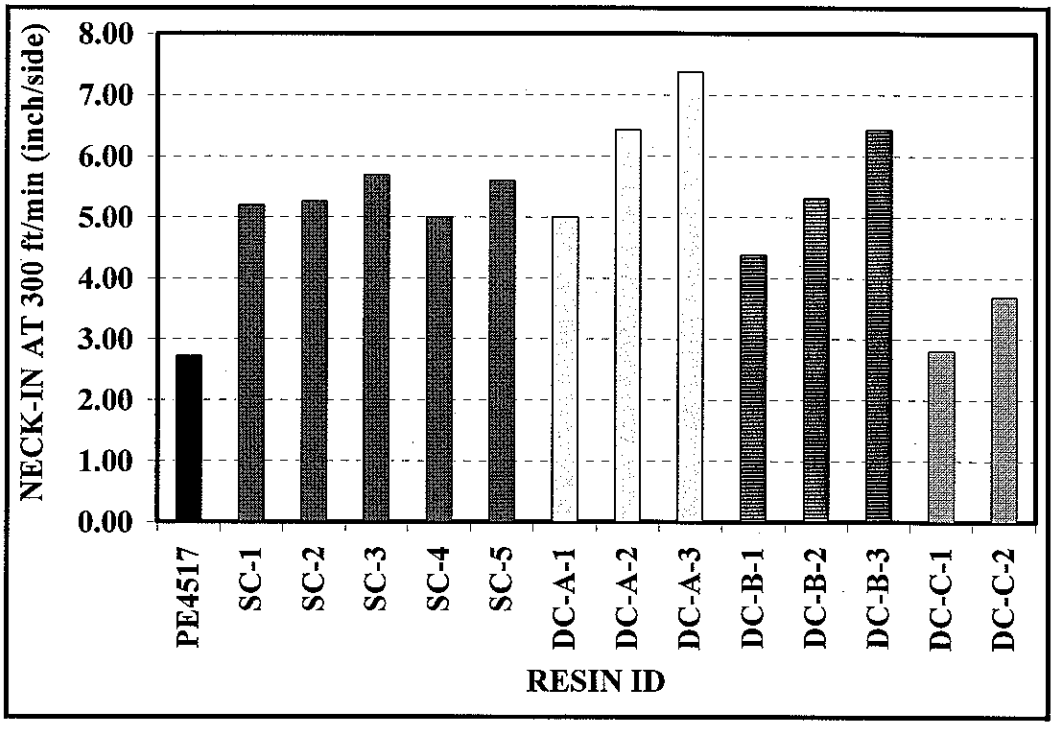

NECK-IN AT 300 ft/min (inch/side)
8.00
7.00
6.00
5.00
4.00
3.00
2.00
1.00
0.00
PE4517
SC-1
SC-2
SC-3
SC-4
SC-5
DC-A-1
DC-A-2
DC-A-3
DC-B-1
DC-B-2
DC-B-3
DC-C-1
DC-C-2
RESIN ID

FIG 4

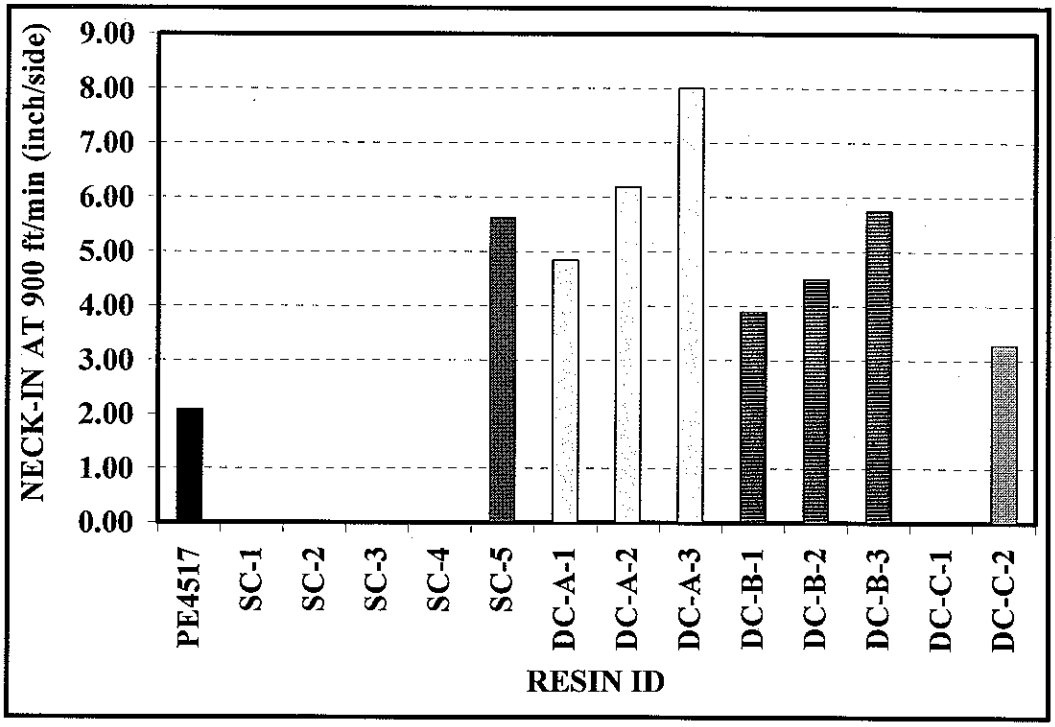
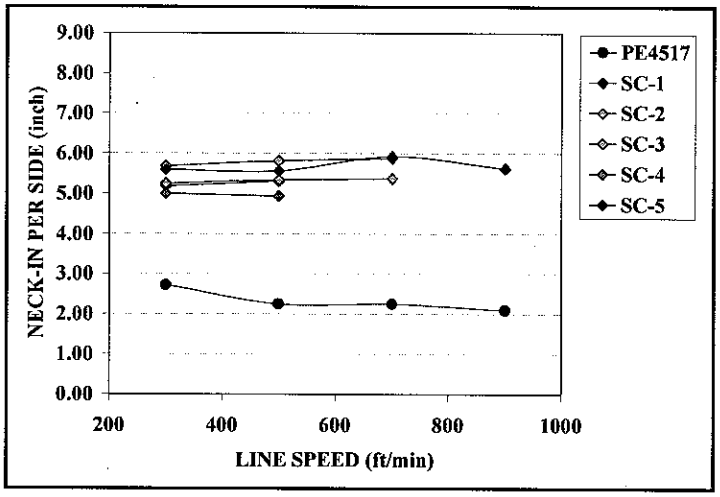
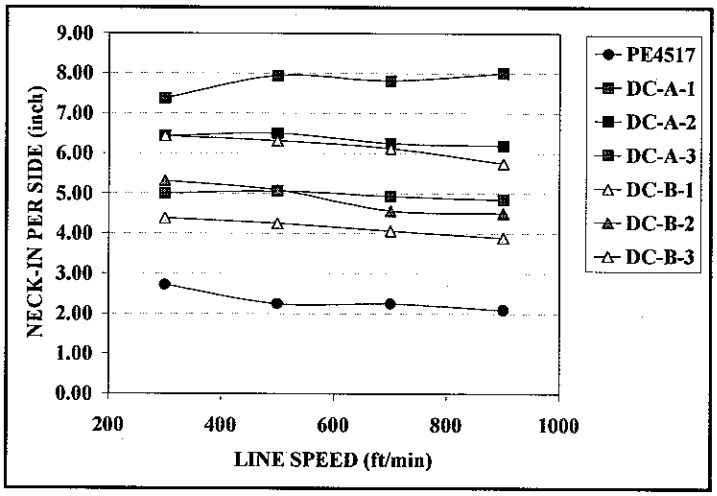

NECK-IN AT 900 ft/min (inch/side)
9.00
8.00
7.00
6.00
5.00
4.00
3.00
2.00
1.00
0.00
PE4517
SC-1
SC-2
SC-3
SC-4
SC-5
DC-A-1
DC-A-2
DC-A-3
DC-B-1
DC-B-2
DC-B-3
DC-C-1
DC-C-2
RESIN ID

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

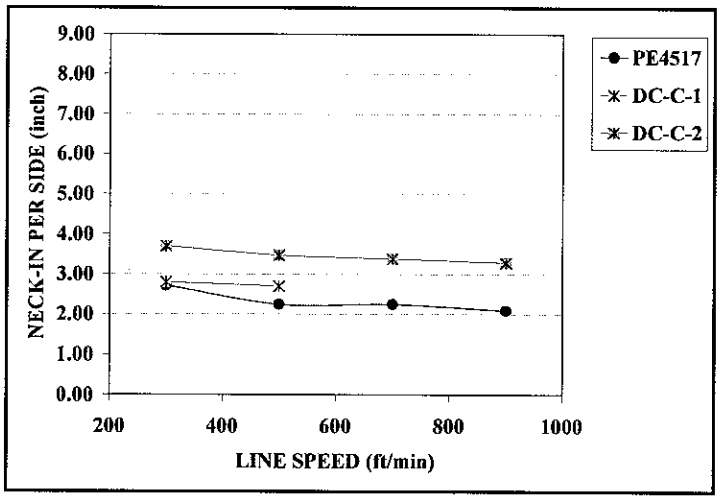

NECK-IN PER SIDE (inch)
9.00
8.00
7.00
6.00
5.00
4.00
3.00
2.00
1.00
0.00
200
400
600
800
1000
LINE SPEED (ft/min)
PE4517
DC-C-1
DC-C-2

FIG 6

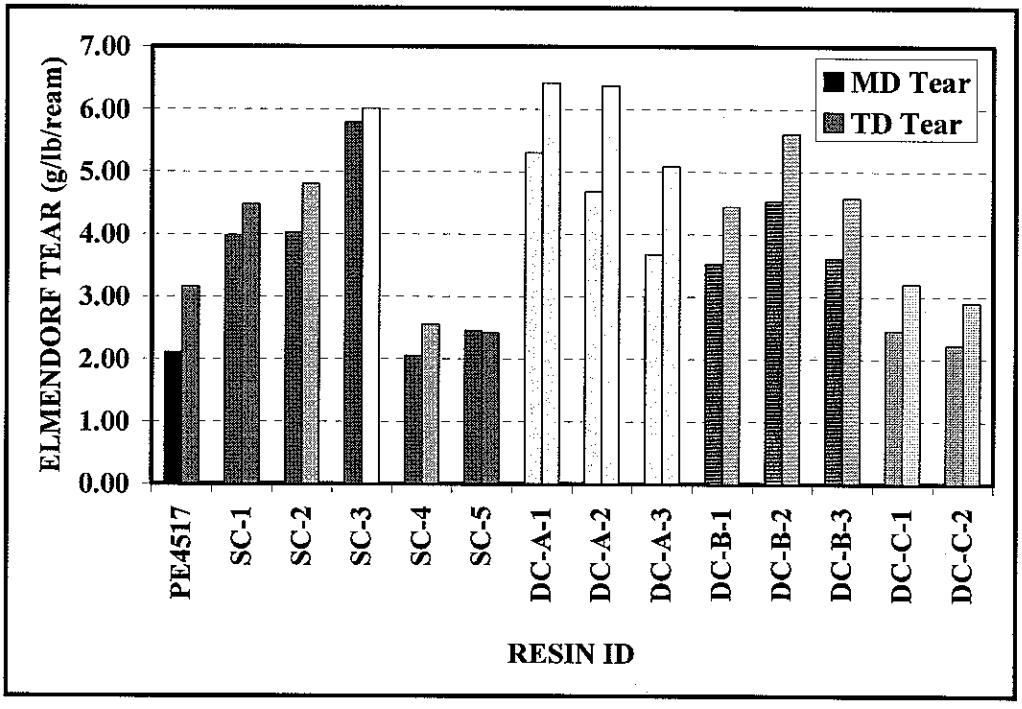

ELMENDORF TEAR (g/lb/ream)
7.00
6.00
5.00
4.00
3.00
2.00
1.00
0.00
MD Tear
TD Tear
PE4517
SC-1
SC-2
SC-3
SC-4
SC-5
DC-A-1
DC-A-2
DC-A-3
DC-B-1
DC-B-2
DC-B-3
DC-C-1
DC-C-2
RESIN ID

FIG 7

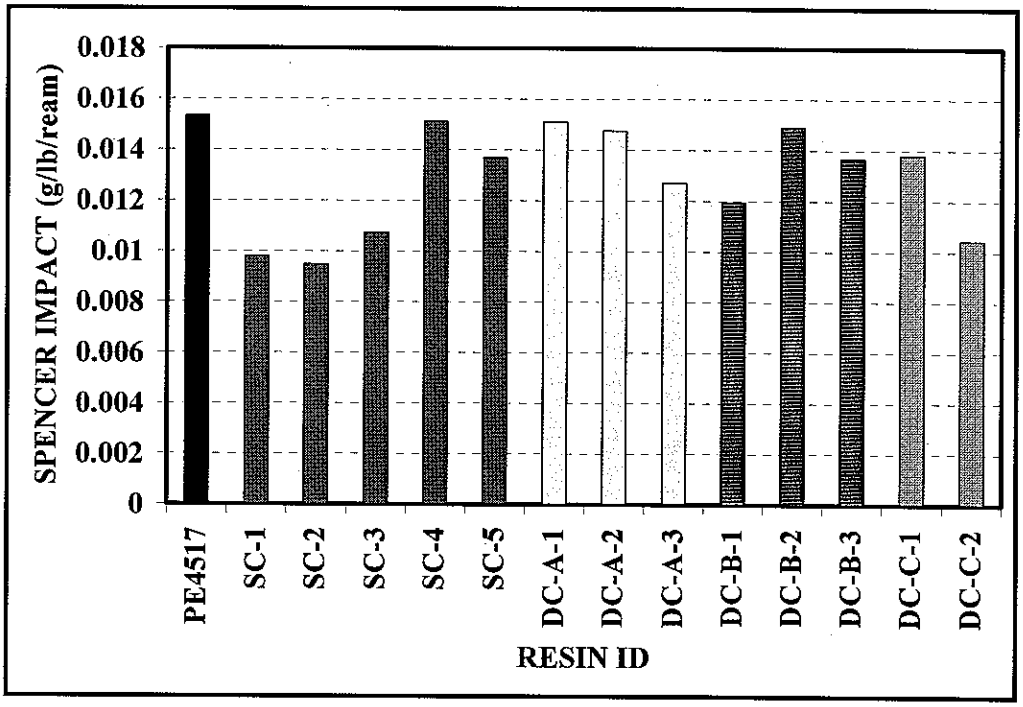

SPENCER IMPACT (g/lb/ream)
0.018
0.016
0.014
0.012
0.01
0.008
0.006
0.004
0.002
0
PE4517
SC-1
SC-2
SC-3
SC-4
SC-5
DC-A-1
DC-A-2
DC-A-3
DC-B-1
DC-B-2
DC-B-3
DC-C-1
DC-C-2
RESIN ID

FIG 8

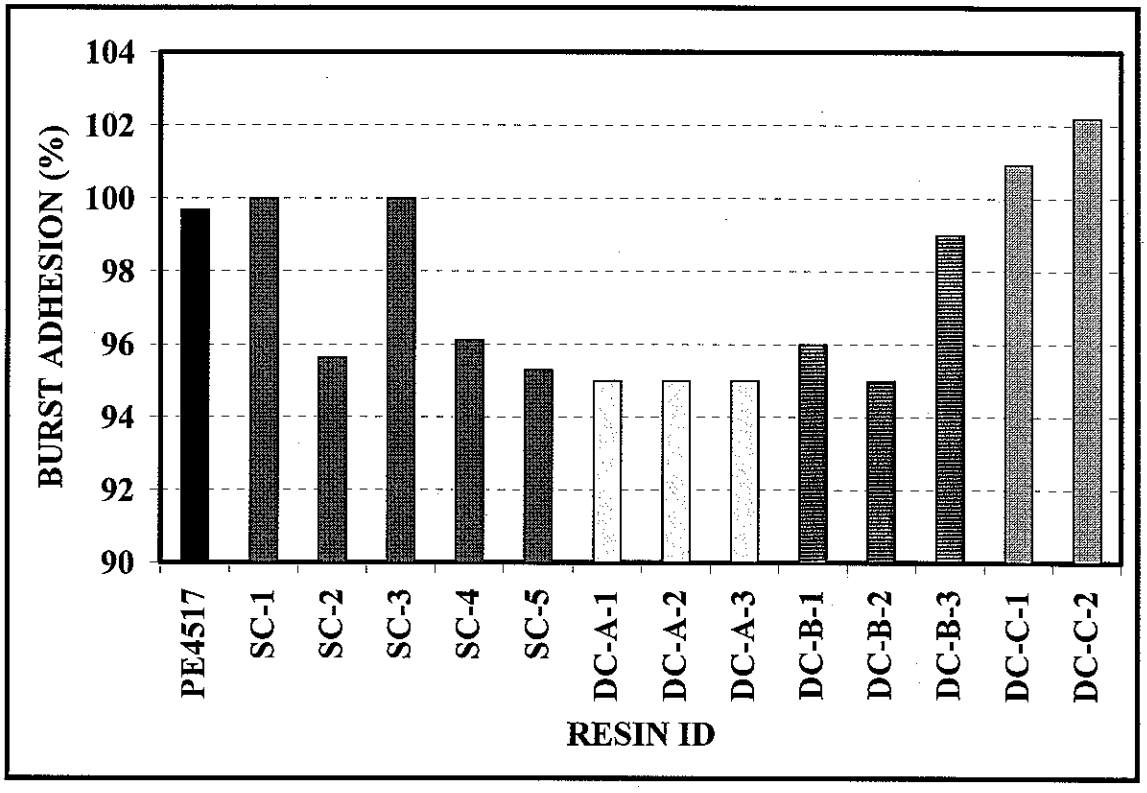

BURST ADHESION (%)
104
102
100
98
96
94
92
90
PE4517
SC-1
SC-2
SC-3
SC-4
SC-5
DC-A-1
DC-A-2
DC-A-3
DC-B-1
DC-B-2
DC-B-3
DC-C-1
DC-C-2
RESIN ID

FIG 9

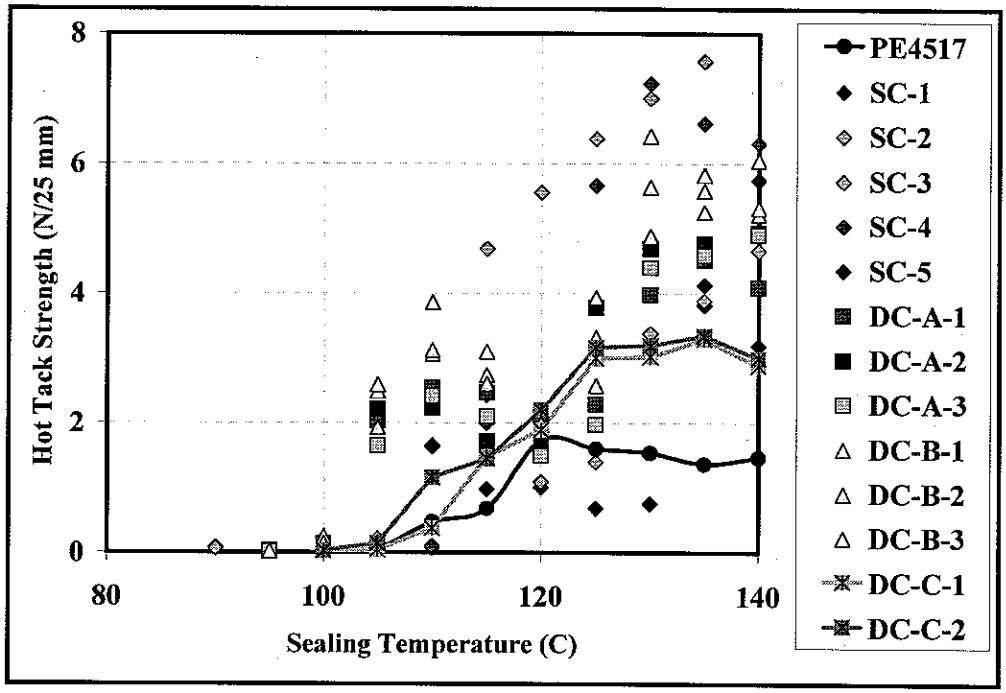
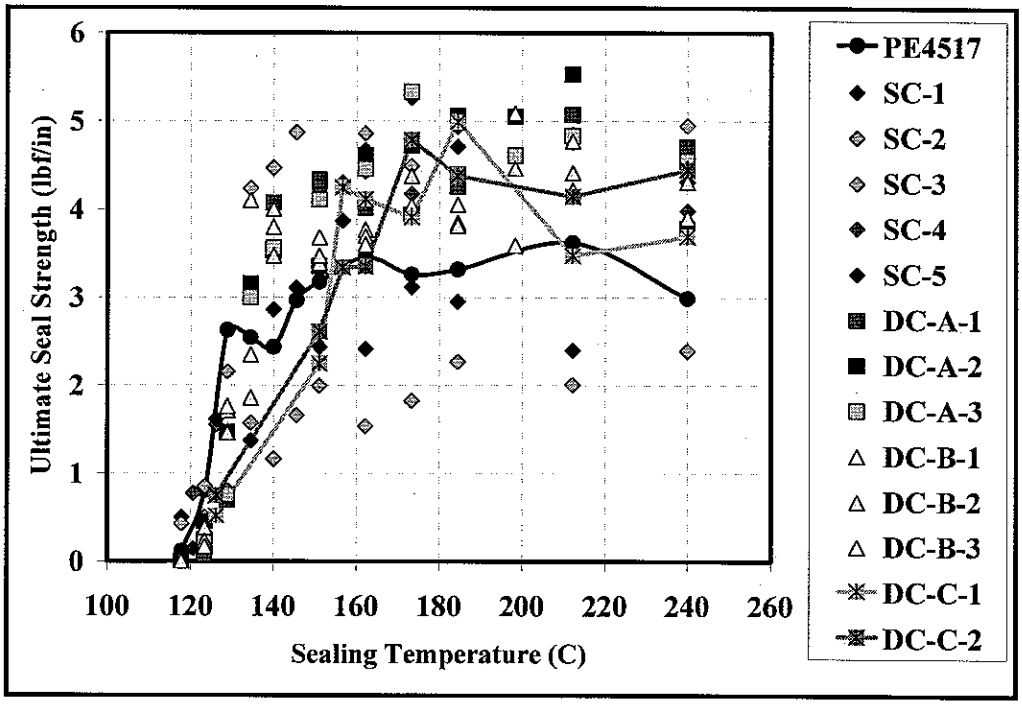
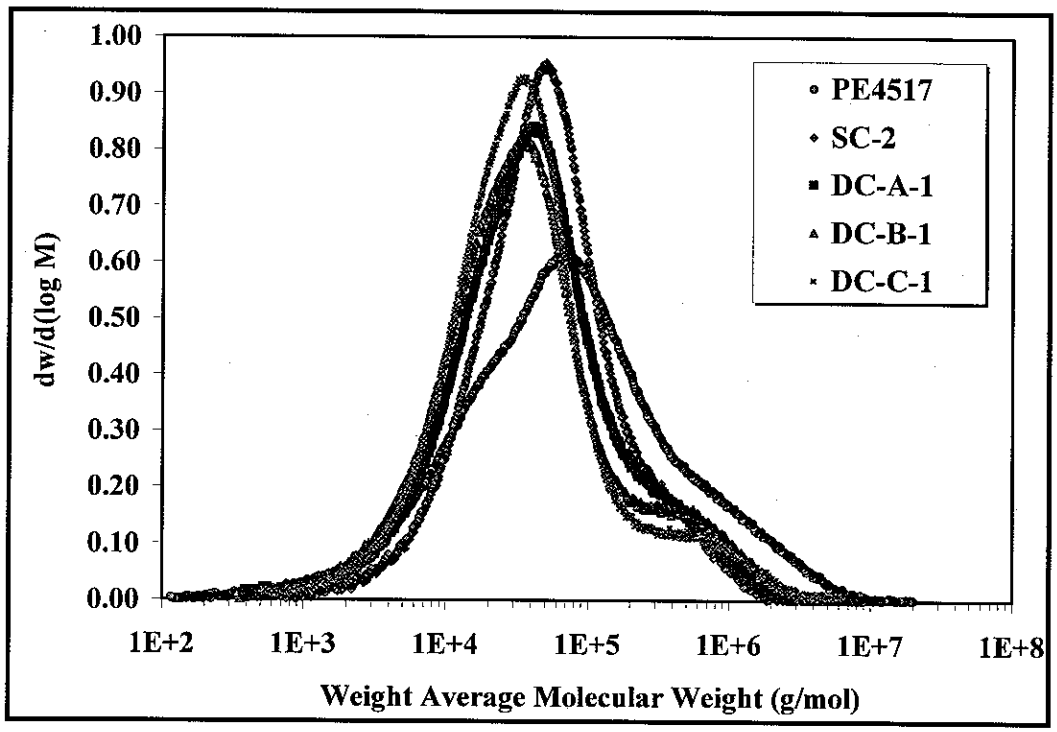

Hot Tack Strength (N/25 mm)
8
6
4
2
0
80
100
120
140
Sealing Temperature (C)
PE4517
SC-1
SC-2
SC-3
SC-4
SC-5
DC-A-1
DC-A-2
DC-A-3
DC-B-1
DC-B-2
DC-B-3
DC-C-1
DC-C-2

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

5

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)

5

FIG 11b

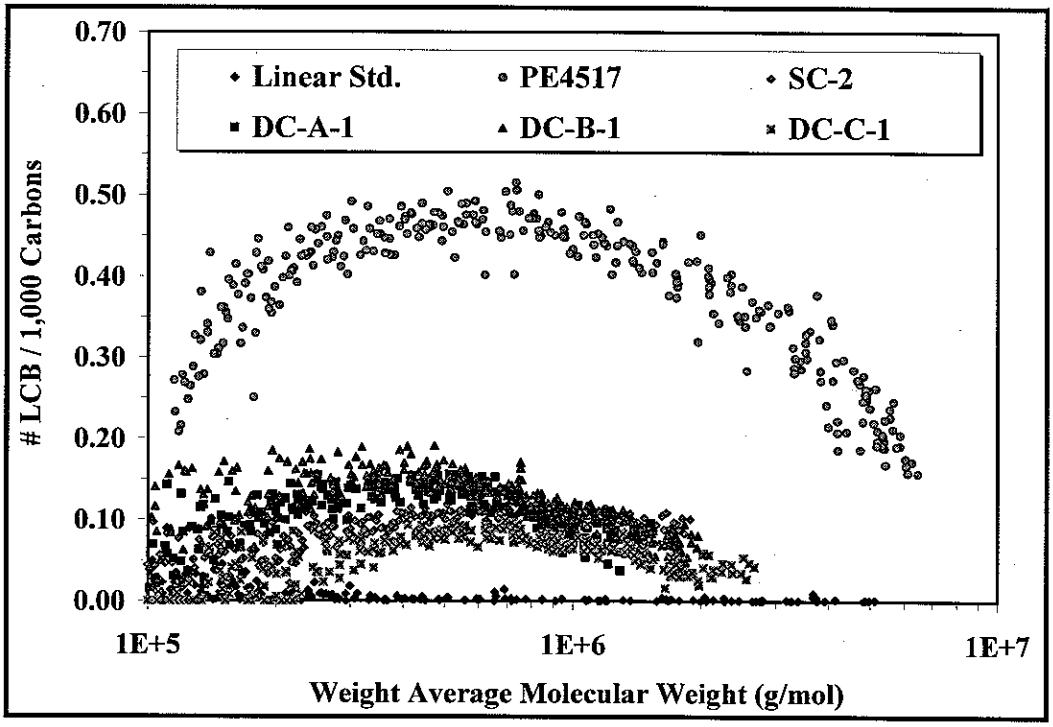

Linear Std.
PE4517
SC-2
DC-A-1
DC-B-1
DC-C-1
LCB / 1,000 Carbons
0.70
0.60
0.50
0.40
0.30
0.20
0.10
0.00
1E+5
1E+6
1E+7
Weight Average Molecular Weight (g/mol)

FIG 12a

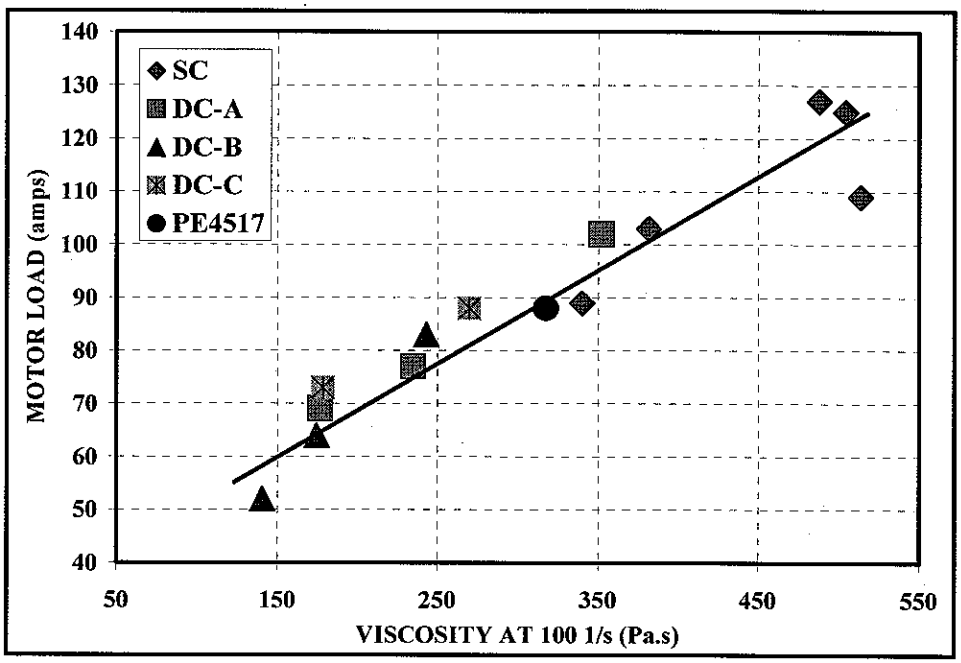

SC
DC-A
DC-B
DC-C
PE4517
MOTOR LOAD (amps)
VISCOSITY AT 100 1/s (Pa.s)
140
130
120
110
100
90
80
70
60
50
40
50
150
250
350
450
550

FIG 12b

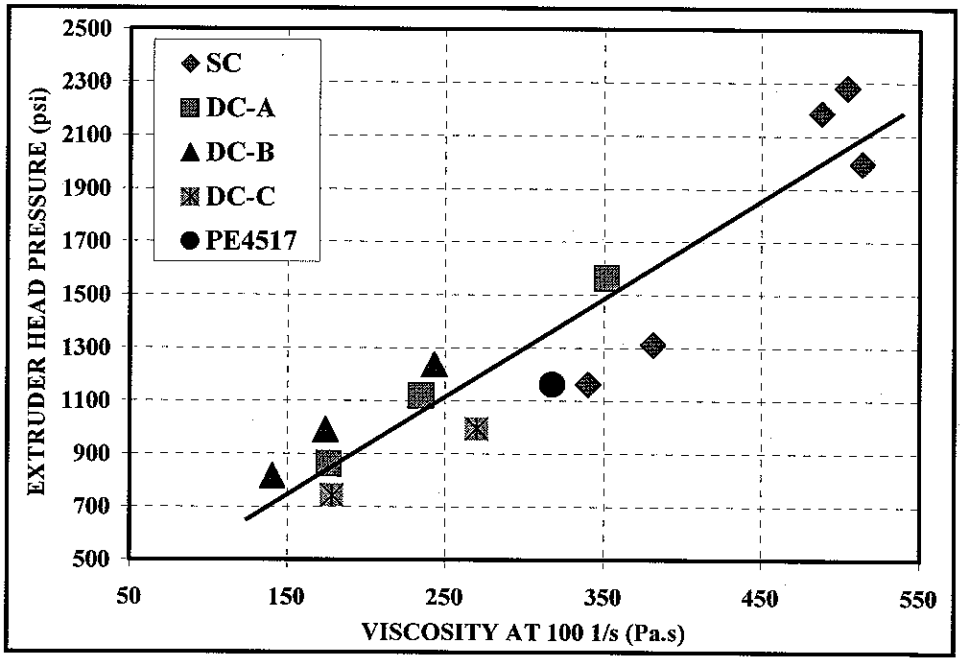

SC
DC-A
DC-B
DC-C
PE4517
EXTRUDER HEAD PRESSURE (psi)
2500
2300
2100
1900
1700
1500
1300
1100
900
700
500
50
150
250
350
450
550
VISCOSITY AT 100 1/s (Pa.s)

FIG 13a

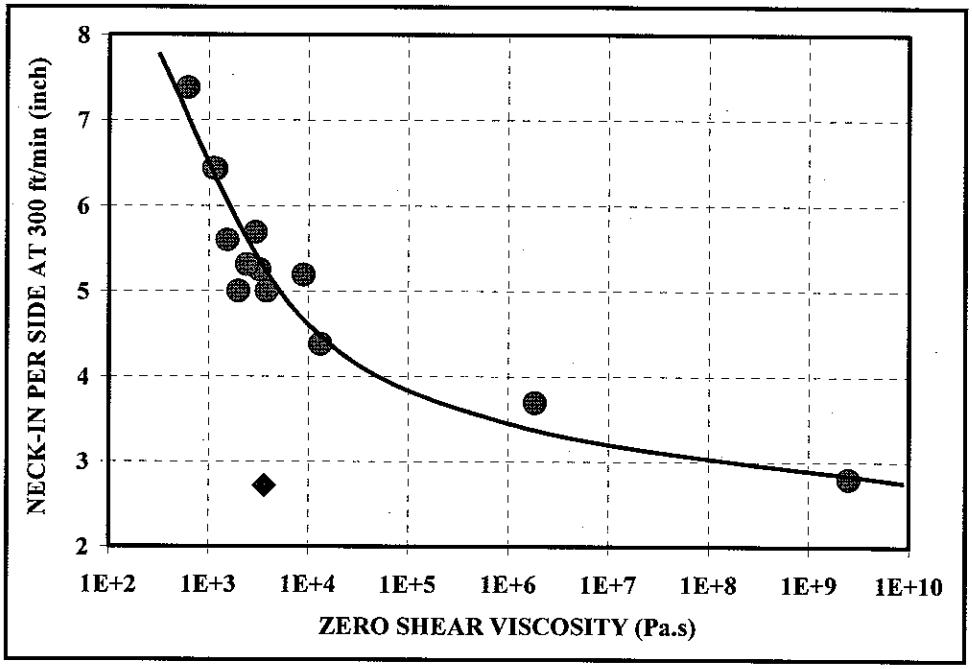

NECK-IN PER SIDE AT 300 ft/min (inch)
8
7
6
5
4
3
2
1E+2
1E+3
1E+4
1E+5
1E+6
1E+7
1E+8
1E+9
1E+10
ZERO SHEAR VISCOSITY (Pa.s)

FIG 13b

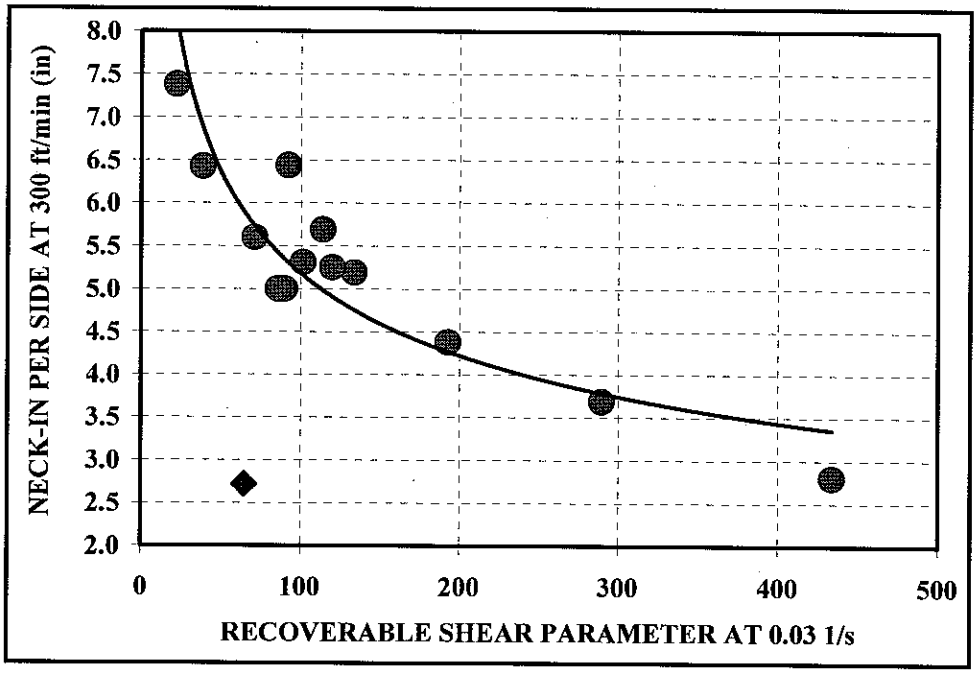
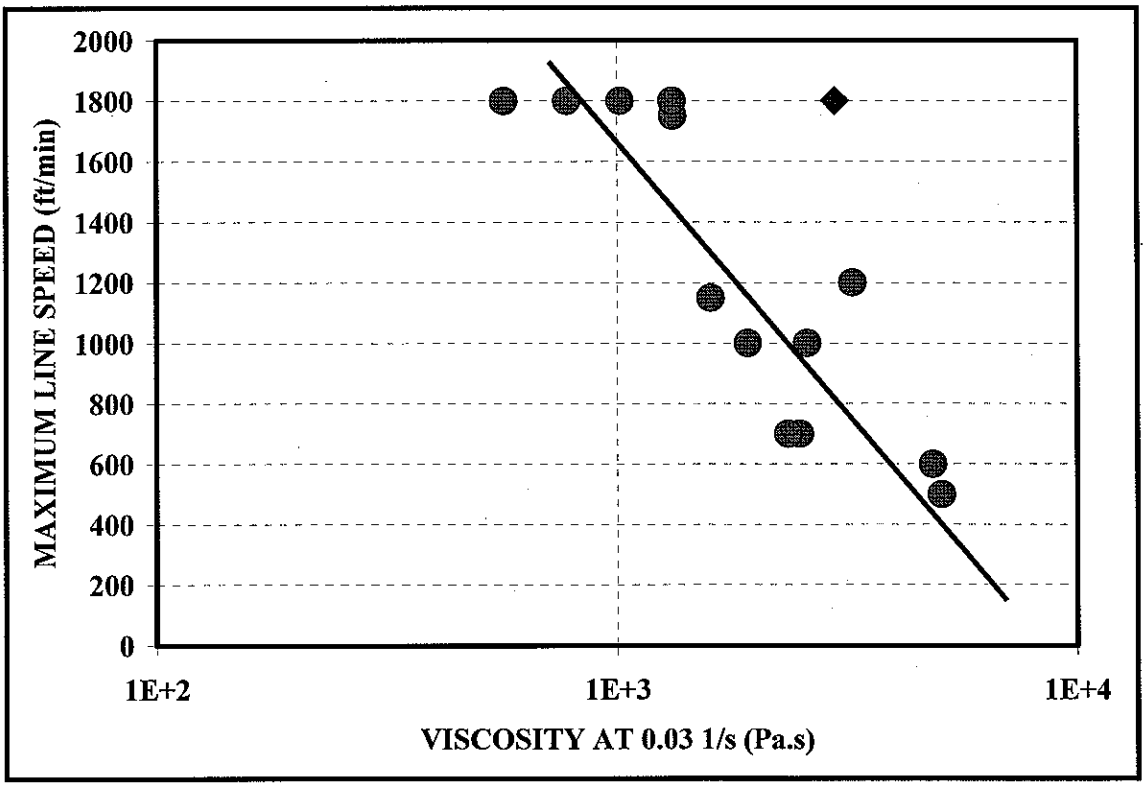

NECK-IN PER SIDE AT 300 ft/min (in)
8.0
7.5
7.0
6.5
6.0
5.5
5.0
4.5
4.0
3.5
3.0
2.5
2.0
0
100
200
300
400
500
RECOVERABLE SHEAR PARAMETER AT 0.03 1/s

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)

5