

*Compatibility Data for Rextac[®]
APAO: Polymer Blends*

Blend Preparation

- About one pound of the blend components were mixed in a Brabender Mixer, kept at about 350F, for about 30 minutes to 45 minutes, depending on the nature of the polymer.
- After the mixing was considered complete, the blend was transferred to a Menasha box.
- The blend's components are formulated at composition ratios of 25:75, 50:50 and 75:25.

Data for Rextac® APAO: Polymer Blends

- Unless otherwise noted, the compatibility of the blends was judged by observing the appearance of the blend in a test tube at room temperature, R.T., and at 190C (375F)
- The following three tables show the compatibility of several Rextac APAOs in blends with a wide array of polymers commonly used in the hot melt adhesives, HMA industry.

COMPATIBILITY DATA OF 25:75 APAO : POLYMER BLENDS

Product Type	Blend A R.T. 190C	Blend B R.T. 190C	Blend C R.T. 190C	Blend D R.T.	Blend E R.T.	Blend F R.T. 190C	Blend G R.T. 190C	Blend H R.T. 190C	Blend I R.T. 190C	Blend J R.T. 190C	Blend K R.T. 190C	Blend L R.T. 190C	Blend M R.T. 190C	Blend N R.T.	Blend O R.T.
2115	o cl	o cl	o cl	cl	cl	o cl	o cl	o cl	o cl	o cl	o s.c	o o	s.c. cl	o	o
2215	o cl	o cl	o cl	n.d.	n.d.	o s.c.	o cl	o cl	o cl	o cl	o s.c	o o	s.c. cl	n.d.	n.d.
2180	o cl	o cl	o cl	s.c.	cl	o cl	o cl	o cl	o cl	o cl	o s.c	c o	s.c. cl	o	o
2280	o cl	o cl	o cl	n.d.	n.d.	o cl	o cl	o s.c	o s.c.	o cl	c s.c.	c o	s.c. cl	n.d.	n.d.
2315	o cl	o cl	o cl	n.d.	n.d.	o cl	o cl	o cl	o s.c.	o cl	o cl	o o	s.c. cl	n.d.	n.d.
2385	o cl	o cl	o cl	cl	s.c	o cl	o s.c.	o s.c	o s.c.	o cl	o c	c o	s.c. cl	o	o
2535	o cl	o cl	o cl	n.d.	n.d.	o cl	o cl	o cl	o s.c.	o cl	c cl	c o	s.c. cl	n.d.	n.d.
2585	o cl	o cl	o cl	cl	s.c	o cl	o s.c.	o s.c	c s.c.	o cl	c c	c o	s.c. cl	o	o
2715	o cl	o cl	o cl	n.d.	n.d.	o cl	o cl	o s.c	o s.c.	o cl	c c	o o	s.c. cl	n.d.	n.d.
2780	o cl	o s.c.	o s.c.	c	s.c	c cl	c c	c cl	c s.c.	c cl	c c	c o	s.c. cl	o	o

BLEND

NOTES:

A: APAO: EPOLENE C-18 LMW MODIFIED PE = 25:75

cl = clear

B: APAO: EPOLENE N-15 LMW PP = 25:75

s.c. = slightly cloudy

c: APAO: EPOLENE C-10 MMW PE = 25:75

c = cloudy

D: APAO: KRATON D-1702 SEP, 28% St = 25:75

o = opaque

E: APAO: KRATON G-1657X SEBS, 13% St = 25:75

I = incompatible, 2 phases

F: APAO: EMA, 21% MA, 270 MI = 25:75

n.d., not determined

G: APAO: EMA, 6.5% MA, 6.0 MI = 25:75

The compatibility with the KRATON SBC'S (Blends D, E, N, and O) was

H: APAO: EVA, 18% VA, 450 MI = 25.75

determined by compression molding ca. 47 mil thick, 1" by 2" plaques and

I: APAO: EVA, 28% VA, 510 MI = 25.75

observing their optical appearance by looking through them.

J: APAO: GMA, 10% GMA, 4.3 MI = 25:75

BLEND

K: APAO: EMAAA, 6% AA, 20 MI = 25:75

L: APAO: BUTYL RUBBER 365 = 25:75

N: APAO: KRATON D-1102 SBS, 28% St = 25:75

M: APAO: POLYBUTENE, H1500, 3200 cSt = 25:75

O: APAO: KRATON D-1107 SIS, 14% St = 25:75

COMPATIBILITY DATA OF 50:50 APAO : POLYMER BLENDS

Product Type	Blend A R.T. 190C	Blend B R.T. 190C	Blend C R.T. 190C	Blend D R.T.	Blend E R.T.	Blend F R.T. 190C	Blend G R.T. 190C	Blend H R.T. 190C	Blend I R.T. 190C	Blend J R.T. 190C	Blend K R.T. 190C	Blend L R.T. 190C	Blend M R.T. 190C	Blend N R.T.	Blend O R.T.
2115	o s.c	o cl	o s.c.	cl	cl	o s.c.	o cl	o cl	o cl	o cl	o s.c.	s.c. o	s.c. cl	o	o
2215	o cl	o cl	o cl	n.d.	n.d.	o c.l.	o cl	o cl	o cl	o cl	o s.c.	s.c. o	s.c. cl	n.d.	n.d.
2180	o s.c	o cl	o cl	s.c.	cl	o cl	o cl	o cl	o cl	o cl	o s.c.	c o	s.c. cl	o	o
2280	o s.c	o cl	o s.c.	n.d.	n.d.	c s.c.	o cl	o s.c.	c c	o s.c.	c s.c.	c o	s.c. cl	n.d.	n.d.
2315	o cl	o cl	o cl	n.d.	n.d.	o cl	o cl	o cl	o s.c.	o cl	o c	o o	s.c. cl	n.d.	n.d.
2385	o cl	o cl	o cl	cl	s.c	o s.c.	o s.c.	o cl	o s.c.	o s.c.	o c	c o	s.c. cl	o	o
2535	o cl	o cl	o cl	n.d.	n.d.	o cl	o cl	o cl	o s.c.	o s.c.	c s.c.	c o	s.c. cl	n.d.	n.d.
2585	o s.c	o cl	o cl	cl	s.c	o s.c.	o s.c.	o s.c.	c s.c.	o cl	c c	c o	s.c. cl	o	o
2715	o cl	o cl	o cl	n.d.	n.d.	o cl	o cl	o s.c.	o s.c.	o s.c.	c c	o o	s.c. cl	n.d.	n.d.
2780	o cl	o s.c.	o s.c.	c	s.c	c cl	c s.c.	c c	c c	c s.c.	c c	c o	s.c. cl	o	o

BLEND

NOTES:

- A: APAO: EPOLENE C-18 LMW MODIFIED PE = 50:50
- B: APAO: EPOLENE N-15 LMW PP = 50:50
- c: APAO: EPOLENE C-10 MMW PE =50:50
- D: APAO: KRATON D-1702 SEP, 28% St = 50:50
- E: APAO: KRATON G-1657X SEBS, 13% St = 50:50
- F: APAO: EMA, 21% MA, 270 MI = 50:50
- G: APAO: EMA, 6.5% MA, 6.0 MI = 50:50
- H: APAO: EVA, 18% VA, 450 MI = 50:50
- I: APAO: EVA, 28% VA, 510 MI = 50:50
- J: APAO: GMA, 10% GMA, 4.3 MI = 50:50
- K: APAO: EMAAA, 6% AA, 20 MI = 50:50
- L: APAO: BUTYL RUBBER 365 = 50:50
- M: APAO: POLYBUTENE, H1500, 3200 cSt = 50:50

cl = clear
s.c. = slightly cloudy
c = cloudy
o = opaque
I = incompatible, 2 phases
n.d., not determined
The compatibility with the KRATON SBC'S (Blends D, E, N, and O) was determined by compression molding ca. 47 mil thick, 1" by 2" plaques and observing their optical appearance by looking through them.

BLEND

- N: APAO: KRATON D-1102 SBS, 28% St = 50:50
- O: APAO: KRATON D-1107 SIS, 14% St = 50:50

COMPATIBILITY DATA OF 75:25 APAO : POLYMER BLENDS

Product Type	Blend A R.T. 190C	Blend B R.T. 190C	Blend C R.T. 190C	Blend D R.T.	Blend E R.T.	Blend F R.T. 190C	Blend G R.T. 190C	Blend H R.T. 190C	Blend I R.T. 190C	Blend J R.T. 190C	Blend K R.T. 190C	Blend L R.T. 190C	Blend M R.T. 190C	Blend N R.T.	Blend O R.T.
2115	o s.c.	o cl	o s.c.	?	?	o s.c.	o cl	o cl	o cl	o cl	c s.c.	l l	s.c. cl	o	o
2215	o cl	o cl	o cl	n.d.	n.d.	o cl	o cl	o cl	o cl	o cl	o s.c.	l l	s.c. cl	n.d.	n.d.
2180	o cl	o cl	o s.c.	o	c	o s.c.	o cl	o cl	o s.c.	o cl	o s.c.	l l	s.c. cl	o	cl
2280	o s.c.	o cl	o s.c.	n.d.	n.d.	c s.c.	o cl	o s.c.	c s.c.	o s.c.	c s.c.	l l	s.c. cl	n.d.	n.d.
2315	o cl	o cl	o cl	n.d.	n.d.	o cl	o cl	o cl	o s.c.	o cl	o s.c.	c o	s.c. cl	n.d.	n.d.
2385	o cl	o cl	o cl	s.c.	s.c.	o s.c.	o s.c.	o cl	o s.c.	o s.c.	o c	c o	s.c. s.c.	o	o
2535	o cl	o cl	o cl	n.d.	n.d.	o cl	o cl	o cl	o s.c.	o s.c.	c s.c.	c o	s.c. cl	n.d.	n.d.
2585	o s.c.	o cl	o cl	cl	c	o s.c.	o cl	o s.c.	c s.c.	o s.c.	c c	c o	s.c. cl	o	o
2715	o cl	o cl	o cl	n.d.	n.d.	o cl	o cl	o s.c.	o s.c.	o cl	c c	c o	s.c. cl	n.d.	n.d.
2780	o s.c.	o s.c.	o s.c.	c	s.c.	c s.c.	c s.c.	c c	c c	c s.c.	c c	c o	s.c. cl	o	o

BLEND

NOTES:

A:	APAO: EPOLENE C-18 LMW MODIFIED PE = 75:25	cl = clear
B:	APAO: EPOLENE N-15 LMW PP = 75:25	s.c. = slightly cloudy
C:	APAO: EPOLENE C-10 MMW PE =75:25	c = cloudy
D:	APAO: KRATON D-1702 SEP, 28% St = 75:25	o = opaque
E:	APAO: KRATON G-1657X SEBS, 13% St = 75:25	l = incompatible, 2 phases
F:	APAO: EMA, 21% MA, 270 MI = 75:25	n.d., not determined
G:	APAO: EMA, 6.5% MA, 6.0 MI = 75:25	The compatibility with the KRATON SBC'S (Blends D, E, N, and O) was determined by compression molding ca. 47 mil thick, 1" by 2" plaques and observing their optical appearance by looking through them.
H:	APAO: EVA, 18% VA, 450 MI = 75:25	
I:	APAO: EVA, 28% VA, 510 MI = 75:25	
J:	APAO: GMA, 10% GMA, 4.3 MI = 75:25	
K:	APAO: EMAAA, 6% AA, 20 MI = 75:25	BLEND
L:	APAO: BUTYL RUBBER 365 = 75:25	N: APAO: KRATON D-1102 SBS, 28% St = 75:25
M:	APAO: POLYBUTENE, H1500, 3200 cSt = 75:25	O: APAO: KRATON D-1107 SIS, 14% St = 75:25