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(72) 55133-3427 33427

55133-3427 33427

55133-3427 33427

55133-3427 33427

55133-3427 33427

(74)

:

(54) / ,

가 / . . . 130 200
 , / , ,
 , / , ,
 가 , ,

/

,가 ,

) 2

(3M)

가

(

가

)

가

(incise drape)
가

() 2

4,310,509

가

가

가

4,323,557

가

5,829,422

-p-

'699
275

5
350

6,216,699
47-56

가

PCT

WO 00/56828

WO 00/78885

가

5,369,155

12

32

39

6,143,317

가

가

가

/

가

130

200

/

/

가
가 / 가

25 0.30 mmHg, 90 26.7 mmHg , 184.4 (, 184.4
760 mmHg)(12).
130 가가

가 가

가 가

3
가 / 가 .가
가

(hot melt coatable adhesive)

(, 21)
가 (, 가) , 'PSA'
가 (Dahlquist criterion)

[: Handbook of pressure Sensitive Adhesive Technology, Donatas Satas(Ed.), 2 , p. 17
(1989)] 1 가 $1 \times 10^{-6} \text{ cm}^2 / \text{d}$

2,
yne

N-

()
09/901,219 (2001 7 9 ; Schaberg)

가

N-

(SIS),

가

가

가

가

5,750,134

('UV')

5,633,010

가

, 3-

, 4

(PCMX),

(8

), C8-18

, C8-18

, 2-

4

4

, (C12-22)

, 4

4,619,979

4,843,134

5,637,646

5,804,610

가

가

가

가

10 %

5 %

1 %

(solventless)'

가

%

125

가

100

5

1

30 가 . 가 5%

가

, 가 . 가 ,
, (-) 가 , ,
(,) ()
가 .

, tert- ; ,
, 2- , sec- , n- , (IOTG), 2-
, 2- , 2- 2- ;
, 0.01 0.5 ,가 100 0.001 10
, 0.02 0.20

가 가 가 가 가
가 ,가 가 가
, 가
, (가
) .

가 , 가

가

가 , 4,554,324 (Husman)

가

가

(,)
가

가

, () (, ()
) . () ,1 ()
, ,1 () ,
, 2- - () , 2- - n-
) ; 1 , () , N- , ()
)) 0 20 % 100 80 % 1
, 2- - n-
90 98 % 1 (PSA) , 2- - 2 10 %
% , 90 % 98 % 가 PSA , 2- - 2 % 6 %
, 2- - n- 85 98%
, 2- - 2 15% N- ,

N-90, N-98%, N-10%, N-1, N-35, n-55, PSA, 2, 10, %

가 (wet-stick) 가

- (a) Tg가 10 () 30 70 ;
- (b) 70 30 ;
- (c) (a) + (b) 100 10 100 가

WO 00/56828

- (a) (i) 가 10 4 ; (ii) 가
- (b) (i) 4 ; (ii) 1 ()

WO 00/78885

가 가 가 4.5 (0.24 kg) 6 가 가 8 0 cm/ 가 가 45° 3

20 μm

가

09/764,478 (2001. 1. 17, Zhou

)

가

가

가

(, 가)
, 170 가

200

가 가

90

150

3

5

%

0.5%

20%

가

2

15

%,

가

/ 가

, 가

가

40

100

가

, 가

가

가

가

(homogeneous mixing)

$1/2$ / - , /

가

(melt-on-demand)

가

가

()

C.W.

(

() 가 () 가
 (gun) , 가 () ,
 (, (, Chris Rauwendaal CTM) ,
 'Mixing in Polymer Processing 'Mixing in Single-Screw Extruders', M ; Chris Rauwendaal
 'Mixing in Single-Screw Extruders', Mixing in Polymer Processing ; Marcel Dekker Inc.: New York (1991) pp. 129, 176-177 185-186)

/ 가 가
 , 가 가
 가 가 , 가 가

, ; (,
 (,) ;

가 , (,)
 (,) 가 , () ;

가 , ()
 B.F. () 가 , ()
 () (ELF)

가 , 가 , 가
 가 , 가 가

()

171,985), (5,215,087 6,

4,310,509 ; 4,323,557 ; 5,979,450

가

	/	/
PVPI		
2EHA	2-	
AA		
PPEG	PYCAL94/	
EPPG	UCON 50H400, /	-
PG		-
2PE	2-	-
MPD	2- 1,3-	
MMB	3- 3- , 1-	CBC
MPEG 550	MPEG 550/A (550)	-
Irg 651	가 651/A 2,2- -2-	
Irg 1076	가 1076/ 8(e, 5-tert- -4-)	
IOTG		()
(Tegmer) R 804	R 804/ -2	CP
R 80 9	R 809/PEG 400 -2-	CP
PEG400	400, 400	-

					()	()
1	30.00	1.54	0.00	0.00	,	
2	30.00	1.61	1.50	0.00	,	
3	30.00	1.56	0.00	1.40	,	
4	30.00	3.23	0.00	2.83	,	

5 34

(I₂) , (Nal) 6 AA 1
 4 2 (A-F)

[2]

	2-EHA	AA	NVP	10% IOTG	10% Irg 651	10% Irg 1076	PPEG	EPPG
	(g)	(g)	(g)	(g)	(g)	(g)	(g)	(g)
A	38.9	50.0	5.0	0.6	1.5	4.0	70.0	0.0
B	43.9	45.0	5.0	0.6	1.5	4.0	60.0	0.0
C	48.9	40.0	5.0	0.6	1.5	4.0	50.0	0.0
D	38.9	50.0	5.0	0.6	1.5	4.0	0.0	70.0
E	43.9	45.0	5.0	0.6	1.5	4.0	0.0	60.0
F	48.9	40.0	5.0	0.6	1.5	4.0	0.0	50.0

(I₂) 4 , R 804, R 809, CPH-30N PPEG 18 %

(Nal) 50 %

2 A F 50% Nal 1.2 g 18% I₂ 2.8 g
 110 15 , 1 4

ii) PET 0.0508 mm(2 mil) 0.0508 mm(2 m

가 , 가 , 가
 가
 3

[3]

5 34

	CPH - 30	809	804	PPEG	NaI	2						(,)
	I ₂	I ₂	I ₂	I ₂		(g)						
	(g)	(g)	(g)	(g)		A	B	C	D	E	F	
5	2.8	0.0	0.0	0.0	1.2	25.0	0.0	0.0	0.0	0.0	0.0	
6	0.0	2.8	0.0	0.0	1.2	25.0	0.0	0.0	0.0	0.0	0.0	
7	0.0	0.0	2.8	0.0	1.2	25.0	0.0	0.0	0.0	0.0	0.0	
8	0.0	0.0	0.0	2.8	1.2	25.0	0.0	0.0	0.0	0.0	0.0	
9	0.0	0.0	0.0	0.0	0.0	25.0	0.0	0.0	0.0	0.0	0.0	NA ¹
10	2.8	0.0	0.0	0.0	1.2	0.0	25.0	0.0	0.0	0.0	0.0	
11	0.0	2.8	0.0	0.0	1.2	0.0	25.0	0.0	0.0	0.0	0.0	
12	0.0	0.0	2.8	0.0	1.2	0.0	25.0	0.0	0.0	0.0	0.0	
13	0.0	0.0	0.0	2.8	1.2	0.0	25.0	0.0	0.0	0.0	0.0	
14	0.0	0.0	0.0	0.0	0.0	0.0	25.0	0.0	0.0	0.0	0.0	NA
15	2.8	0.0	0.0	0.0	1.2	0.0	0.0	25.0	0.0	0.0	0.0	
16	0.0	2.8	0.0	0.0	1.2	0.0	0.0	25.0	0.0	0.0	0.0	
17	0.0	0.0	2.8	0.0	1.2	0.0	0.0	25.0	0.0	0.0	0.0	
18	0.0	0.0	0.0	2.8	1.2	0.0	0.0	25.0	0.0	0.0	0.0	
19	0.0	0.0	0.0	0.0	0.0	0.0	0.0	25.0	0.0	0.0	0.0	NA
20	2.8	0.0	0.0	0.0	1.2	0.0	0.0	0.0	25.0	0.0	0.0	
21	0.0	2.8	0.0	0.0	1.2	0.0	0.0	0.0	25.0	0.0	0.0	
22	0.0	0.0	2.8	0.0	1.2	0.0	0.0	0.0	25.0	0.0	0.0	
23	0.0	0.0	0.0	2.8	1.2	0.0	0.0	0.0	25.0	0.0	0.0	
24	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	25.0	0.0	0.0	
25	2.8	0.0	0.0	0.0	1.2	0.0	0.0	0.0	0.0	25.0	0.0	NA
26	0.0	2.8	0.0	0.0	1.2	0.0	0.0	0.0	0.0	25.0	0.0	
27	0.0	0.0	2.8	0.0	1.2	0.0	0.0	0.0	0.0	25.0	0.0	
28	0.0	0.0	0.0	2.8	1.2	0.0	0.0	0.0	0.0	25.0	0.0	
29	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	25.0	0.0	NA
30	2.8	0.0	0.0	0.0	1.2	0.0	0.0	0.0	0.0	0.0	25.0	
31	0.0	2.8	0.0	0.0	1.2	0.0	0.0	0.0	0.0	0.0	25.0	
32	0.0	0.0	2.8	0.0	1.2	0.0	0.0	0.0	0.0	0.0	25.0	
33	0.0	0.0	0.0	2.8	1.2	0.0	0.0	0.0	0.0	0.0	25.0	
34	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	25.0	NA

¹ NA

()

5 34

3.9 cm² () No. 137(3M)
 6- 25 -
 가 (*Enterococcus faecalis*)
), ATCC 10741(9.0 x 10⁸ cfu/ml) 50 μℓ 37 가
 10 , 30 , 60 120 . 가
 3
 2 ml , 가 , 0.1% 가 (BHIB)
 가 가
 가 (TSA)
 (+) (-)

1
 2 % 2.4 % 4,323,527 (R
 osso)
 (: 0.037 mm(1.5 mil)) (C1) 4 5 34, 6
 35 42, 9 43 47, 12 48 59, 14 60 62, 16
 63 64

180 :
 1 4 0.0508 mm(2 mil) PET 1.2
 7 cm(1/2) 25.4 cm(10) 53# 2.04 kg(4.5 lb) 6
 SP 2000() 5 180 ° 30.5 cm/
 /1/2 , / (N/m)

[4]

5 34 1

	10			30			60			120			(N/m)
	Rep 1	Rep 2	Rep 3	Rep 1	Rep 2	Rep 3	Rep 1	Rep 2	Rep 3	Rep 1	Rep 2	Rep 3	
C1	+	+	+	+	+	+	+	+	+	-	-	-	1 NA
5	-	-	-	-	-	-	-	-	-	-	-	-	482
6	+	+	+	-	-	-	-	-	-	-	-	-	563
7	-	-	-	-	-	-	-	-	-	-	-	-	558
8	-	-	-	-	-	-	-	-	-	-	-	-	547
9	+	+	+	+	+	+	+	+	+	+	+	+	201
10	-	-	-	-	-	-	-	-	-	-	-	-	355
11	-	-	-	-	-	-	-	-	-	-	-	-	407
12	-	-	-	-	-	-	-	-	-	-	-	-	404
13	-	-	-	-	-	-	-	-	-	-	-	-	368
14	+	+	+	+	+	+	+	+	+	+	+	+	265
15	-	-	-	+	-	-	-	-	-	-	-	-	475

16	-	-	-	-	-	-	-	-	-	-	-	-	447
17	-	-	-	-	-	-	-	-	-	-	-	-	482
18	-	-	-	+	-	-	-	-	-	-	-	-	444
19	+	+	+	+	+	+	+	+	+	+	+	+	403
20	-	-	-	-	-	-	-	-	-	-	-	-	420
21	-	-	-	-	-	-	-	-	-	-	-	-	532
22	-	-	-	-	-	-	-	-	-	-	-	-	493
23	-	-	-	-	-	-	-	-	-	-	-	-	543
24	+	+	+	+	+	+	+	+	+	+	+	+	523
25	-	-	-	-	-	-	-	-	-	-	-	-	468
26	-	-	-	-	-	-	-	-	-	-	-	-	644
27	-	-	-	-	-	-	-	-	-	-	-	-	578
28	-	-	-	-	-	-	-	-	-	-	-	-	523
29	+	+	+	+	+	+	+	+	+	+	+	+	468
30	+	+	+	-	-	-	-	-	-	-	-	-	517
31	-	-	+	-	-	-	-	-	-	-	-	-	506
32	-	-	-	-	-	-	-	-	-	-	-	-	598
33	-	-	-	-	-	-	-	-	-	-	-	-	NA
34	+	+	+	+	+	+	+	+	+	+	+	+	545
NA													

가 , 201 644 N/m
 , 355 644 N/m 5, 7, 8, 10 13, 15 18, 20 23,
 25 28 31 33 10 9, 1
 4, 19, 24, 29 34 () ,
 35 42
 IOA NVP 5 2
 (G-H) 1 4

[5]

G H

	IOA	NVP	10% IOTG	10% Irg 651	10% Irg 1076
	(g)	(g)	(g)	(g)	(g)
G	90.0	10.0	0.6	1.5	4.0
H	95.0	5.0	0.6	1.5	4.0

G H 150 10 1 4
 2.5 % NaI , 2 % I 2 PHE 3040
 PHE 3040 6 가 4 5 5 6

%, /, NaI 25 %, 20
 NaI/I₂ POE 10 (8) I(IOA/NVP=91/9)
 (43 45, 18 mm)
 46 47 (130 170) POE 10 (126) (184)
 가 0.0381 mm(1.5 mil) PET
 (DCP-)

[8]

43 47

	91/9 IOA/NVP (%)	I ₂ (%)	NaI (%)	POE 10 (%)
43	95.50	2.00	2.50	0.00
44	93.25	3.00	3.75	0.00
45	91.00	4.00	5.00	0.00
46	85.50	2.00	2.50	10.00
47	83.25	3.00	3.25	10.00

5 34

(bare) PET (: 0.0381 mm(1.5 mil))

9

[9]

43 47 C1

	10			30			60			120			N/m
	Rep1	Rep2	Rep3										
C1	+	+	+	+	+	+	+	+	+	-	-	-	NA
43	+	+	+	+	+	+	+	+	+	-	-	-	486
44	+	+	+	+	+	+	-	-	-	-	-	-	589
45	+	+	+	+	-	+	-	-	-	-	-	-	488
46	+	+	+	+	+	+	+	+	+	-	-	-	843
47	+	+	+	+	+	+	-	-	-	-	-	-	773

43 47 /
 , POE 10

43, 45, 27

(Schoniger) () ± 0.1 g
 , 500 ml
 18 M 가 10 ml 5% (EM) 20 125
 . 30 , (EM) () 10 가
 , (silver billet combination electrode) () 751T
 0.005 N % 100 % 10

[10]

43, 45, 27 1

	I ₂ /NaI (%)	(%)	(%)	(%)
C1	2/2.4	4.03	3.48	86.4
43	2/2.5	4.12	3.91	94.9
45	4/5	8.23	6.61	80.3
27	1.7/2.1	3.56	2.74	77.0

(27, 43 45) (C1)

48 59

7 / 2/2.5 I₂ % 11 POE 10 . POE 10

[11]

48 59

	91/9 IOA/NVP (%)	I ₂ (%)	NaI (%)	POE 10 (%)
48	95.5	2.0	2.5	0.0
49	95.5	2.0	2.5	0.0
50	85.5	2.0	2.5	10.0
51	85.5	2.0	2.5	10.0
52	80.5	2.0	2.5	15.0
53	80.5	2.0	2.5	15.0
54	75.5	2.0	2.5	20.0
55	75.5	2.0	2.5	20.0
56	70.5	2.0	2.5	25.0
57	70.5	2.0	2.5	25.0
58	65.5	2.0	2.5	30.0
59	65.5	2.0	2.5	30.0

43 47
IOA/NVP 가 12

PET (5 34)
12

[12]

48 59 1

	(mm)	10			30			60			120		
		Rep1	Rep2	Rep3									
C1	0.0254	+	+	+	+	+	+	+	+	+	-	-	-
48	0.0508	+	+	+	+	+	+	+	-	-	-	-	-
49	0.1270	+	+	+	+	+	+	-	-	-	-	-	-
50	0.0508	+	+	+	+	+	+	-	-	+	-	-	-
51	0.1270	+	+	+	+	+	+	-	+	-	-	-	-
52	0.0508	+	+	+	+	+	+	+	-	+	-	-	-
53	0.1270	+	+	+	+	+	+	+	+	+	-	-	-
54	0.0508	+	+	+	+	+	+	+	+	+	-	-	-
55	0.1270	+	+	+	+	+	+	+	+	+	-	-	-
56	0.0508	+	+	+	+	+	+	-	+	-	-	-	-
57	0.1270	+	+	+	+	+	+	+	+	+	-	-	-
58	0.0508	+	+	+	+	+	+	-	-	-	-	-	-
59	0.1270	+	+	+	+	+	+	+	+	+	-	-	-

PSA

POE 10

60 62

IOA NVC 1 4 EVA
J, K L 13

[13]

J, K L

		IOA	NVC	10% Irg 651	10% IOTG	10% Irg 1076
		(g)	(g)	(g)	(g)	(g)
60	J	87.0	7.0	1.5	0.5	4.0
61	K	84.0	10.0	1.5	0.5	4.0

62	L	81.0	13.0	1.5	0.5	4.0
----	---	------	------	-----	-----	-----

I₂ Nal J, K L 25 mg 110
 15 2.8 g 50% Nal 1.2 g
 154 1 4
 1 4 0.0508 mm(2 mil) PET
 0.0508 mm(2 mil)
 35 64 14

[14]

60 62 C1

	10			30			60			120		
	Rep1	Rep2	Rep3									
C1	+	+	+	+	+	+	+	+	+	-	-	-
60	+	+	+	+	+	+	-	-	+	-	-	-
61	+	+	+	+	+	+	+	+	+	-	-	-
62	+	+	+	+	+	+	+	+	+	-	-	-

IOA/NVC 가

63 71

가 1 4 가 EVA AA 15

[15]

63 71

	2EHA	AA	10% IOTG	10% Irg 651	10% Irg 1076	PPEG	PG	2PE	MPD	MMB
	%	%	%	%	%	%	%	%	%	%
63	25.9	29.4	0.3	0.9	2.3	41.2	0.0	0.0	0.0	0.0
64	29.4	33.3	0.3	1.0	2.7	0.0	33.3	0.0	0.0	0.0
65	27.5	31.3	0.3	0.9	2.5	0.0	37.5	0.0	0.0	0.0
66	29.4	33.3	0.3	1.0	2.7	0.0	0.0	33.3	0.0	0.0
67	27.5	31.3	0.3	0.9	2.5	0.0	0.0	37.5	0.0	0.0
68	29.4	33.3	0.3	1.0	2.7	0.0	0.0	0.0	33.3	0.0
69	27.5	31.3	0.3	0.9	2.5	0.0	0.0	0.0	37.5	0.0

70	29.4	33.3	0.3	1.0	2.7	0.0	0.0	0.0	0.0	33.3
71	27.5	31.3	0.3	0.9	2.5	0.0	0.0	0.0	0.0	37.5

63 71 PVPI 4% 1 4 0.0508 mm(2 mil) PET
 0,0508 mm(2 mil)

63 64 5 34
 16

[16]

63, 64 1

	10			30			60			120		
	Rep1	Rep2	Rep3									
C1	+	+	+	+	+	+	+	+	+	-	-	-
63	+	+	+	+	+	+	+	+	+	-	-	-
64	+	+	+	+	+	+	-	-	-	-	-	-

64 60

72

A) () , / (/ 가 (PVP/V

(, 415.8 g, 50/50 / 97/3 36% 24,906
 EM) 1663.3 g 가

50/50 , 74.88 g, PVP/VA E-535() 83.2 g, () 9.98 g 가 ,
) 8.32 g (/ 가 ,

) , 60 (POM-1506G
) 1

121 , 135 USA) 45 1 1.9 cm(3/4) (1, 2 3
 149 , 149 (RPM)

, 50
 (finger tack)

73

가 (PVP/VA)

75/25- / 50% 70/15/15
 / / (PCT WO 84/03837 14)

2081 g .

30/70 / 230 g, PVP/VA E-335(166.7 g, 23 g 27.6 g /
 , 가 , 72 . , /

가

74

(2- /1-) /
 가

2138 g, 1112/ 1310(/
) 50/50 30.6%

1112 1310 6

(, 22.2 g, 26.6 g, 220 g 2- /1-
 가 가 V-216) 435 g

가

72

75 77

2EHA NVP , 17 2
 (M-N) 1-4

[17]

M N

	2EHA	NVP	IRG 651	IOTG	IRG 1076
	(g) (%)	(g) (%)	(g) (%)	(g) (%)	(g) (%)
M	6129.00 (90.000)	681.000 (10.000)	10.215 (0.150)	0.204 (0.003)	27.240 (0.400)
N	6469.500 (95.000)	340.500 (5.000)	10.215 (0.150)	0.204 (0.003)	27.240 (0.400)

M N 160 10 1-4
 NaI 2.5 g l 2 가 2 mg . 가 80 18
 (homogeneity) 가 80

M 140 1701 10 , 20 30 1 4 NaI
 가 18 .

[18]

75-77 2

	17		NaI	(g)	I ₂	()
		(g)	(g)		(g)	
C2	M	100.0	2.5	0.0	2.0	
75	M	100.0	2.5	1.0	2.0	
76	M	100.0	2.5	1.4	2.0	
77	M	100.0	2.5	1.4	2.0	

가 35-42

가 가

가

100 ml
 302 g
 가

25 184 g

가

78 85

76 77
 8 10

PHE 3040

1 4

가

35

42

150 160

150

2

PET

35

42

1

4

19

[19]

			PHE3040	()
		()	()	
78	76	90	10	50
79	76	90	10	125
80	76	80	20	50
81	76	80	20	125
82	77	90	10	50
83	77	90	10	125
84	77	80	20	50
85	77	80	20	125

30 cm/ (12 /)
 ASTM D882-97
 가 (MPa) 20 76, 79
 81 2 , 77, 83 85 3

[20]

76, 77, 79, 81, 83 85

	(MPa)	(%)	(MPa)
76()	0.193	1100	0.248
77()	0.110	500	0.152
79	0.690	670	1.586
81	1.241	610	3.034
83	0.483	700	0.710
85	1.103	500	2.000

PHE 3040 가 가 (76 77) 10 가 ()
 79, 81 85) 가 (76 77) 10 가 ()
 : A: 78 85 (3
 B: G 1652); C: ((50
 D 1107). 가 2 kg (78-85) (21) (50
 (PP)) 24 , 2 (78-85)
 / (3 M90, IMASS 30
 cm/ (12 /) 15 35 , N/m 21

[21]

3가 78-85

	A	B	C	
	(N/m)	(N/m)	(N/m)	(N/m)
78	424	274	230	118
79	396	294	219	201
80	404	250	151	143
81	402	282	268	170

16. 1 N- , / , N- , ; 2- -1,3- , 3- ; 2- , N-n- -2- , PEG400 -2- , PEG400 , PEG400

17. 1 , .

18. 17 ,

- (a) Tg가 10 () 30 70 ;
- (b) 70 30 ;
- (c) (a) + (b) 100 10 100 가

19. 1 , .

20. 18 ,

- (a) (i) 가 10 4 ; (ii) 가 10 1 ;
- (b) (i) 4 1 () ; (ii) 1

21. 1 , .

22. 21 ,

- (a) 가 ;
- (b) ,

130 , 200 /

39 **40.** , 가 .

1 **41.** .

23 **42.** .

30 **43.** .

31 **44.** .

36 **45.** .

45 **46.** , 2 가 .