EXHIBIT B

(Part 2 of 4)

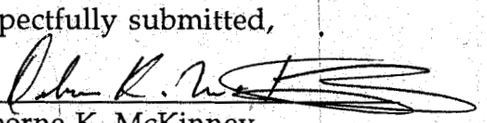
REMARKS

The amendments to the specification and the claims are intended to bring the present application to the status of parent application USSN 08/054,379 (now abandoned) immediately before the parent application was abandoned. Continuity of prosecution as to parent application USSN 08/054,379 was maintained through patent application USSN 08/378,998, now abandoned.

The amendments to the specification update the priority application data and correct typographical and/or transcription errors.

The amendments to independent Claims 1 and 17 describing the heterogeneously branched ethylene polymer are supported in the specification on page 14, lines 22-23. There are also amendments to Claims 1 and 17 to correct transcription errors. The other amendment to independent Claim 1 clarifies the composition used to make the film as comprising components (A) and (B). The amendments to dependent Claims 2 and 18 are supported in Table 1, page 12, in Polymer Q. Applicants believe none of the amendments add any new matter and accurately reflect the status of the parent application before abandonment. Entry of the amendments is respectfully requested.

Respectfully submitted,

By 

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Dated: February 2, 1996

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PATENT

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Applicants: Pak-Wing Steve Chum, et al.

Serial No.: 08/544,497
Filed: October 18, 1995
Attorney Docket No.: C-40,121-AU

Art Unit: 1505
Previous Examiner: D. Wu

4C

For: FABRICATED ARTICLES MADE FROM ETHYLENE POLYMER BLENDS

HEREBY CERTIFY THAT THIS CORRESPONDENCE IS BEING DEPOSITED WITH THE UNITED STATES POSTAL SERVICE AS FIRST CLASS MAIL WITH SUFFICIENT POSTAGE IN AN ENVELOPE ADDRESSED TO: COMMISSIONER OF PATENTS AND TRADEMARKS, WASHINGTON, D.C. 20231, on February 2, 1996
DATE OF DEPOSIT

Jan Alverson
PRINT OR TYPE NAME OF PERSON SIGNING CERTIFICATE

Jan Alverson
SIGNATURE OF PERSON SIGNING CERTIFICATE

2-2-96
DATE OF SIGNATURE

Hon. Commissioner of Patents & Trademarks
Washington, D.C. 20231

Sir:

SECOND PRE-EXAMINATION AMENDMENT

Prior to examination of the above-identified continuation application and after entry of amendments requested in the First Pre-Examination Amendment filed herewith, Applicants respectfully request consideration of the Third Markovich Declaration being submitted herewith as well as entry and consideration of the following:

260 YC 04-1512 03/14/96 08544497
26074 102 156.00CH

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In the Specification:

On page 1, line 2, please delete "pending" .

On page 1, line 4, please delete "related to pending" and insert therefor -- continuation-in-part of -- .

On page 9, before the heading "Determination of Slope of Strain Hardening", please insert the following:

-- Determination of Critical Shear Stress and Critical Shear Rate

Gas extrusion rheometry (GER) is described by M. Shida, R.N. Shroff and L.V. Cancio in Polymer Engineering Science, Vol. 17, no. 11, p. 770 (1977), and in "Rheometers for Molten Plastics" by John Dealy, published by Van Nostrand Reinhold Co. (1982) on page 97, both publications of which are incorporated by reference herein in their entirety. All GER experiments are performed at a temperature of 190°C, at nitrogen pressures between 5250 to 500 psig using a 0.0296 inch diameter, 20:1 L/D die. An apparent shear stress vs. apparent shear rate plot is used to identify the melt fracture phenomena. According to Ramamurthy in Journal of Rheology, 30(2), 337-357 1986, above a certain critical flow rate, the observed extrudate irregularities may be broadly classified into two main types: surface melt fracture and gross melt fracture.

Surface melt fracture occurs under apparently steady flow conditions and ranges in detail from loss of specular gloss to the more severe form of "sharkskin." In this disclosure, the onset of surface melt fracture is characterized at the beginning of losing extrudate gloss at which the surface roughness of extrudate can only be detected by 40x magnification. The critical shear rate at onset of surface melt fracture for the substantially linear olefin polymers is at least 50 percent greater than the critical shear at the onset of surface melt fracture of a linear olefin polymer having about the same I_2 and M_w/M_n.

Gross melt fracture occurs at unsteady flow conditions and ranges in detail from regular (alternating rough and smooth, helical, etc.) to random distortions. For commercial acceptability, (e.g., in blown film products), surface defects should be minimal, if not absent. The critical shear rate at onset of surface melt fracture (OSMF) and onset of gross melt fracture (OGMF) will be used herein based on the changes of surface roughness and configurations of the extrudates extruded by a GER. Preferably,

the critical shear stress at the OGMF and the critical shear stress at the OSMF for the substantially linear ethylene polymers [described] used herein is greater than about 4 x 10^6 dyne/cm^2 and greater than about 2.8 x 10^6 dyne/cm^2, respectively. --

In the Claims

Please cancel Claims 2 and 18 as the slope of strain hardening limitation is to be incorporated into remaining the claims by the amendments that follow.

Please amend the claims as follows:

1. (Twice amended) A film made from an ethylene polymer composition, wherein the composition comprises

(A) from about 10 percent (by weight of the total composition) to about 95 percent (by weight of the total composition) of at least one homogeneously branched substantially linear ethylene/α-olefin interpolymer having:

(i) a density from about 0.89 grams/cubic centimeter (g/cm^3) to about 0.92 g/cm^3,

(ii) a molecular weight distribution (M_W/M_n) from about 1.8 to about 2.8,

(iii) a melt index (I_2) from about 0.001 grams/10 minutes (g/10 min.) to about 10 g/10 min.,

(iv) no [linear] high density fraction, [and]

(v) a single melting peak as measured using differential scanning calorimetry[;], [and]

(vi) a critical shear stress at onset of gross melt fracture of greater than about 4 x 10^6 dyne/cm^2, and

(vii) a slope of strain hardening coefficient greater than or equal to about 1.3 and up to about 2.3; and

(B) from about 5 percent (by weight of the total composition) to about 90 percent (by weight of the total composition) of at least one heterogeneously branched ethylene polymer having a density from about 0.93 g/cm^3 to about 0.965 g/cm^3 and wherein the heterogeneously branched ethylene polymer has no more than about 10 percent (by weight of the polymer) of a polymer fraction having a slope of strain hardening coefficient (SHC) greater than or equal to about 1.3.

17. (Twice amended) In a composition comprising at least one homogeneously branched ethylene/α-olefin interpolymer and at least one heterogeneously branched ethylene/α-olefin interpolymer, the improvement comprising incorporating into the composition from about 10 percent (by weight of the total composition) to about 95 percent (by weight of the total composition) of at least one homogeneously branched substantially linear ethylene/α-olefin interpolymer having:

(i) a density from about 0.89 grams/cubic centimeter (g/cm^3) to about 0.92 g/cm^3,

(ii) a molecular weight distribution (M_w/M_n) from about 1.8 to about 2.8,

(iii) a melt index (I_2) from about 0.001 grams/10 minutes (g/10 min.) to about 10 g/10 min.,

(iv) no [linear polymer] high density fraction, [and]

(v) a single melting peak as measured using differential scanning calorimetry, [and]

(vi) a critical shear stress at onset of gross melt fracture of greater than about 4×10^6 $dyne/cm^2$, and

(vii) a slope of strain hardening coefficient greater than or equal to about 1.3 and up to about 2.3; and

from about 5 percent (by weight of the total composition) to about 90 percent (by weight of the total composition) of at least one heterogeneously branched ethylene polymer having a density from about 0.93 g/cm^3 to about 0.965 g/cm^3 wherein the heterogeneously branched ethylene polymer has no more than about 10 percent (by weight of the polymer) of a polymer fraction having a slope of strain hardening coefficient (SHC) greater than or equal to about 1.3.

Please add the following new claims:

-- 31. A film made from an ethylene polymer composition, wherein the composition comprises

(A) from about 10 percent (by weight of the total composition) to about 95 percent (by weight of the total composition) of

at least one homogeneously branched substantially linear ethylene/α-olefin interpolymer having:

(i) a density from about 0.89 grams/cubic centimeter (g/cm³) to about 0.92 g/cm³,

(ii) a molecular weight distribution (M_w/M_n) from about 1.8 to about 2.8,

(iii) a melt index (I_2) from about 0.001 grams/10 minutes (g/10 min.) to about 10 g/min.,

(iv) no high density fraction,

(v) a single melting peak as measured using differential scanning calorimetry,

(vi) a critical shear stress at onset of gross melt fracture of greater than about 4 x 10^6 dyne/cm², and

(vii) a slope of strain hardening coefficient greater than or equal to about 1.3 and up to about 2.3; and

(B) from about 5 percent (by weight of the total composition) to about 90 percent (by weight of the total composition) of at least one heterogeneously branched ethylene polymer.

32. An ethylene polymer composition comprising

(A) from about 10 percent (by weight of the total composition) to about 95 percent (by weight of the total composition) of

at least one homogeneously branched substantially linear ethylene/α-olefin interpolymer having:

(i) a density from about 0.89 grams/cubic centimeter (g/cm³) to about 0.92 g/cm³,

(ii) a molecular weight distribution (M_w/M_n) from about 1.8 to about 2.8,

(iii) a melt index (I_2) from about 0.001 grams/10 minutes (g/10 min.) to about 10 g/min.,

(iv) no high density fraction,

(v) a single melting peak as measured using differential scanning calorimetry,

(vi) a critical shear stress at onset of gross melt fracture of greater than about 4 x 10^6 dyne/cm², and

(vii) a slope of strain hardening coefficient greater than or equal to about 1.3 and up to about 2.3; and

(B) from about 5 percent (by weight of the total composition) to about 90 percent (by weight of the total composition) of at least one heterogeneously branched ethylene polymer.

33. A film made from an ethylene polymer composition, wherein the composition comprises

(A) from about 10 percent (by weight of the total composition) to about 95 percent (by weight of the total composition) of at least one homogeneously branched substantially linear ethylene/α-olefin interpolymer having:

(i) a density from about 0.89 grams/cubic centimeter (g/cm^3) to about 0.92 g/cm^3,

(ii) a molecular weight distribution (M_W/M_n) from about 1.8 to about 2.8,

(iii) a melt index (I_2) from about 0.001 grams/10 minutes (g/10 min.) to about 10 g/10 min.,

(iv) no high density fraction,

(v) a single melting peak as measured using differential scanning calorimetry,

(vi) a critical shear rate at onset of surface melt fracture for the substantially linear olefin polymers is at least 50 percent greater than the critical shear at the onset of surface melt fracture of a linear olefin polymer having about the same I_2 and M_w/M_n, and

(vii) a slope of strain hardening coefficient greater than or equal to about 1.3 and up to about 2.3; and

(B) from about 5 percent (by weight of the total composition) to about 90 percent (by weight of the total composition) of at least one heterogeneously branched ethylene polymer.

34. An ethylene polymer composition comprising

(A) from about 10 percent (by weight of the total composition) to about 95 percent (by weight of the total composition) of at least one homogeneously branched substantially linear ethylene/α-olefin interpolymer having:

(i) a density from about 0.89 grams/cubic centimeter (g/cm^3) to about 0.92 g/cm^3,

(ii) a molecular weight distribution (M_W/M_n) from about 1.8 to about 2.8,

(iii) a melt index (I_2) from about 0.001 grams/10 minutes (g/10 min.) to about 10 g/10 min.,

(iv) no high density fraction,

(v) a single melting peak as measured using differential scanning calorimetry,

(vi) a critical shear rate at onset of surface melt fracture for the substantially linear olefin polymers is at least 50 percent greater than the critical shear at the onset of surface melt fracture of a linear olefin polymer having about the same I_2 and M_w/M_n, and

(vii) a slope of strain hardening coefficient greater than or equal to about 1.3 and up to about 2.3; and

(B) from about 5 percent (by weight of the total composition) to about 90 percent (by weight of the total composition) of at least one heterogeneously branched ethylene polymer.

18 ~~35~~. The film of Claims ~~31~~ 14 or ~~33~~ 16, or the composition of Claims ~~32~~ 15 or ~~34~~ 17, wherein the composition comprises more than about 40 percent (by weight of the total composition) of at least one homogeneously branched substantially linear ethylene/α-olefin interpolymer. --

REMARKS

Amendment to the Cross-Reference section updates the status of parent applications. A Supplement Oath, pursuant to 37 CFR § 1.67(a), will be filed forthwith declaring the present application is a continuation-in-part application of USSN 07/939,281.

The amendment to the specification pertaining to critical shear stress and critical shear rate is provided to more distinctly set forth the present invention as directed to substantially linear ethylene polymers. Support for the amendment can be found in parent application USSN 07/776,130 (now USP 5,272,236) at page 7, lines 27-34.

34

bridging to page 8, lines 1-27 and in parent application USSN 07/939,281 (now USP 5,278,272) at page 13, lines 4-15. The parent applications were explicitly incorporated in to the present application by reference at page 1, lines 2-8 of the present specification. The amendment to the otherwise verbatim text of the parent application directs the incorporated description to the use of substantially linear ethylene polymers rather than a description referring to the novelty of such polymers.

Support for the amendments to Claims 1 and 17 respecting the critical shear stress limitation can be found in the parent application specifically at page 8, lines 23-27. Claim 17 was also amended to incorporate the weight percent and density requirements for the at least one heterogeneously branched ethylene polymer component of the inventive composition. This amendment provides conformity with Claim 1 and corrects an inadvertent transcription error.

Claims 1 and 17 were also amended as to the "no linear fraction" parameter to correct a transcription error. The substituted term "no high density fraction" refers to substantially linear ethylene polymers and to other homogeneously branched ethylene polymers while the term "linear fraction" or "linear polymer fraction" (at least as used in the present application) refers to heterogeneously branched ethylene polymers. See, specification at page 5, lines 23-27; compare, page 14, lines 6-10.

Support of the slope of strain hardening coefficient amendment to Claims 1 and 17 can be found in Claims 2 and 18, now canceled.

New Claim 31 is supported by the description at page 13, lines 3-6 in the specification, original Claim 1, Claim 2 and parent application 07/776,130 at page 8, lines 23-27. New Claim 32 is supported by the description at page 13, lines 3-6 in the specification, original Claim 17, Claim 18 and parent application 07/776,130 at page 8, lines 23-27. New Claim 33 is supported by the description at page 13, lines 3-6 in the specification, original Claim 1, Claim 2 and parent application 07/939,281 at page 13, lines 4-15. New Claim 34 is supported by the description at page 13, lines 3-6 in the specification, original Claim 17, Claim 18 and parent application 07/939,281 at page 13, lines 4-15. New Claim 35 is supported by Example 6 at page 22 in the specification..

Applicants do not believe that the amendments to the specification or claims add any new matter. Entry of the amendments is respectfully requested and consideration of the Third Markovich Declaration and amendments is also respectfully requested.

Respectfully submitted,

By _____
Osborne K. McKinney
Registration No. P-40,084
Phone: (409) 238-7889

Dated: February 2, 1996

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IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Applicants: Pak-Wing Steve Chum, et al.

Serial No.: 08/544,497
Filed: October 18, 1995
Attorney Docket No.: C-40,121-AU

Art Unit: 1505
Previous Examiner: D. Wu

For: FABRICATED ARTICLES MADE FROM ETHYLENE POLYMER BLENDS

HEREBY CERTIFY THAT THIS CORRESPONDENCE IS BEING DEPOSITED WITH THE UNITED STATES POSTAL SERVICE AS FIRST CLASS MAIL WITH SUFFICIENT POSTAGE IN AN ENVELOPE ADDRESSED TO: COMMISSIONER OF PATENTS AND TRADEMARKS, WASHINGTON, D.C. 20231, on February 2, 1996
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Jan Alverson
SIGNATURE OF PERSON SIGNING CERTIFICATE

2-2-96
DATE OF SIGNATURE

Hon. Commissioner of Patents & Trademarks
Washington, D.C. 20231

Sir:

THIRD MARKOVICH DECLARATION UNDER 37 CFR § 1.132

Ronald P. Markovich declares and states:

THAT, he obtained a Bachelor of Science degree in Chemistry from Wayne State University (Detroit, Michigan) in 1983;

THAT, he joined The Dow Chemical Company (Midland, Michigan) in 1983 as a Chemist in the Research Assignments Program (RAP), and was promoted to Senior Research Chemist in 1989 and to his present position as Project Leader in 1993;

THAT, his first two RAP assignments pertained to analytical test method development, his RAP third assignment was in the Polyolefins Research and Development department and his fourth (and last) RAP assignment in the Polyolefins Technical Service and Development department;

THAT, after his last RAP assignment, he joined the Polyolefins Research and Development department full time and for the last ten and half years, he has focused his research and development efforts in the area of polyolefin product properties and analytical test method procedures and development;

THAT, his current responsibilities pertain to polyolefin product development as related to the interrelationships between fundamental polymer structure, process requirements and product performance properties;

THAT, he is an inventor as to the above-identified patent application and is therefore familiar with the patent application, the Examiner's rejections of the claims and the WO '414 reference on which the Examiner relies;

THAT, as a follow up to the incomplete impact performance results reported in the Second Markovich Declaration, he had the Dynatup impact properties for Inventive Examples and Comparative Examples re-measured and also had the slope of strain hardening coefficient measured for the component polymers used to prepare the various Inventive and Comparative Examples;

THAT, a full report of important component properties, including slope of strain hardening coefficients, is provided in the attached Table 1 and a report of the performance results for Inventive Examples and Comparative Example are provided in Table 2, and that Tables 3, 4 and 5 provide the specific performance results (Dynatup impact strength, Intrinsic tear and Tensile break strength, respectively) for the various Examples at an equivalent Molecular Weight of 71,6000;

THAT, in addition to having very different component polymers, performance results and data conclusively show that Inventive (Blend) Examples as defined by specific component properties, including a slope of strain hardening coefficient greater than or equal to about 1.3 and up to about 2.3, exhibit superior to dramatically superior impact resistance and intrinsic tear resistance relative to WO '414 compositions when directly compared at equivalent weight percentages through the range of 38%/62%, 50%/50% and 72%/28% Component A/Component B;

THAT, the impact properties of the Inventive Examples are particularly unexpected and surprising in that they show substantially higher impact resistance even at slightly higher densities relative to blend compositions representative of WO '414, whereas one skilled in the art would ordinarily expect compositions having higher densities to show inferior impact properties relative to comparative compositions having lower densities; and

THAT, with respect to tensile break strength, although superior or dramatically superior results are easily obtained with Inventive compositions, this property appears to be more sensitive to component polymer concentrations than impact resistance and/or tear resistance, and as such, compositions containing more than 40 weight percent of a substantially linear ethylene interpolymer are considered to be preferred compositions.

The undersigned declares further that all statements made herein of his own knowledge are true and that all statements made on information and belief are believed to be true; and further that these statements were made with the knowledge that willful false statements and the like so made are punishable by fine or imprisonment, or both, under §1001 of Title 18 of the United States Code and that such willful false statements may jeopardize the validity of the application or any patent issuing thereon.

Date 2/2/96

Ronald P. Markovich

Ronald P. Markovich

Table 1

Sample Designation	A Component Example A	B Component Example B	C Component Example C	D Component Example D	AB1 Comparative Component AB1	AB2 Comparative Component AB2	AB3 Comparative Component AB3	Exact 3027 Comparative Resin	Exact 3022 Comparative Resin
Polymer Type	Substantially Linear Ethylene/ Octene Copolymer	Substantially Linear Ethylene/ Butene Copolymer	Substantially Linear Ethylene/ Octene Copolymer	Substantially Linear Ethylene/ Octene Copolymer	Homogeneously Branched Linear Ethylene/Butene Copolymer	Homogeneously Branched Linear Ethylene/Butene Copolymer	Homogeneously Branched Linear Ethylene/Butene Copolymer	Homogeneously Branched Linear Ethylene/Butene Copolymer	Homogeneously Branched Linear Ethylene/Butene Copolymer
Density (g/cc)	0.906	0.9052	0.90575	0.9032	0.9031	0.9033	0.9034	0.9015	0.9065
I2	4.01	4.23	3.99	2.7	3.83	3.93	4.19	3.26	8.48
I10 / I2	8.22	7.88	5.82	7.80	5.90	5.69	5.64	5.65	5.49
I10	32.96	33.32	23.21	21.05	22.6	22.38	23.64	18.42	46.57
Mw by GPC	68200	67100	77400	72300	79100	80700	77500	85800	65100
Mw/Mn by GPC	2.23	2.12	1.89	2.15	2.15	2.17	2.06	2.00	2.00
Slope of Strain Hardening Coefficient	1.5	1.0	1.7	1.3	1.2	1.0	1.1	1.2	1.0
>Shear Stress @ OSGMF (dyn/cm^2)	> 3.88 x 10^6	> 4.31 x 10^6	> 4.31 x 10^6	gross melt fracture not observed up to 4.41 x 10^6	> 3.45 x 10^6	> 3.45 x 10^6	> 3.45 x 10^6	> 3.45 x 10^6	> 3.23 x 10^6
<Shear Stress @ OSGMF (dyn/cm^2)	< 4.09 x 10^6	< 4.48 x 10^6	< 4.48 x 10^6	gross melt fracture not observed	< 3.66 x 10^6	< 3.66 x 10^6	< 3.66 x 10^6	< 3.66 x 10^6	< 3.45 x 10^6

Note 1: Comparative Resin AB1 is a blend containing of 75.87% Exact 3027 and 24.13% Exact 3022.
Note 2: Comparative Resin AB2 is a blend containing of 74.44% Exact 3027 and 25.56% Exact 3022.
Note 3: Comparative Resin AB3 is a blend containing of 73.75% Exact 3027 and 26.25% Exact 3022.

Table 2

Sample Designation	AD1 Inventive Blend Example	BD1 Comparative Example	CD1 Inventive Blend Example	X1 Comparative Example	AD2 Inventive Blend Example	BD2 Comparative Example	CD2 Inventive Blend Example	X2 Comparative Example	AD3 Inventive Blend Example	BD3 Comparative Example	CD3 Inventive Blend Example	X3 Comparative Example	ED3 Inventive Blend Example	X4 Comparative Example
Blend Component														
A	38.46%				72.35%				50.00%					
B		38.14%				71.75%				50.00%				
C			38.46%				72.35%				50.00%			
PL 1850													50.00%	
EXACT 3027				28.95%				53.90%				36.88%		50.00%
EXACT 3022				9.21%				18.50%				13.13%		
HDPE 04352N	61.54%	61.86%	61.54%	61.84%	27.65%	28.25%	27.65%	27.60%	50.00%	50.00%	50.00%	50.00%	50.00%	50.00%
I2	4.11	4.25	4.18	4.13	4.08	4.10	4.04	4.09	4.04	5.02	4.07	4.17	3.43	3.74
I10 / I2	7.31	6.96	6.29	6.19	7.67	7.64	5.98	5.84	7.42	8.22	6.20	5.58	7.33	6.09
I10	30.06	29.59	26.29	25.57	31.29	31.34	24.15	23.87	29.96	41.24	25.23	23.27	25.13	22.76
Mw by GPC	74900	74800	77200	83400	71700	73800	77200	80500	71600	75000	78700	80600	76100	79700
Mw/Mn by GPC	2.56	2.53	2.58	2.52	2.47	2.33	2.20	2.27	2.46	ND	2.44	2.54	2.46	2.42
Strain @ Yield	15.0	15.0	14.9	15.0	14.9	15.0	14.8	15.0	15.0	15.0	15.1	14.9	15.0	15.0
Break Strength	1835	2070	1921	1801	3187	2253	3268	2729	2188	1646	3655	1652	3050	1539
Break Energy	385	57	509	108	1130	781	991	990	981	144	1329	249	1168	214
Intrinsic Tear Dynatup (30 Mil Plaque) Total Energy	160 2.84	102 2.08	221 2.84	110 2.59	279 3.66	107 2.39	377 5.67	142 2.78	224 3.44	112 2.63	264 4.23	116 2.63	269 3.81	34 2.91

ND = not determined

Dynatup Total Energy Impact Strength (Corrected)*

Table 3

Weight Percent of Polymer Representative of '013	38%	50%	72%
Inventive Examples			
A	**2.71** (AD1)	**3.44** (AD3)	**3.65** (AD2)
C	**2.63** (CD1)	**3.85** (CD3)	**5.26** (CD2)
E	**NA**	**3.58** (ED3)	**NA**
Comparative Examples			
B	**1.99** (BD1)	**2.51** (BD3)	**2.32** (BD2)
1	**2.22** (X1)	**2.34** (X3)	**2.47** (X2)
2	**NA**	**2.61** (X4)	**NA**
Calculations	Percent Relative Performance of Inventive Examples (Relative to Comp Ex 1) **18-22% higher** (Relative to Comp Ex B) **32-36% higher**	Percent Relative Performance of Inventive Examples (Relative to Comp Ex. B) **37-53% higher** (Relative to Comp Ex 1) **47-65% higher** (Relative to Comp Ex 2) **32-48% higher**	Percent Relative Performance of Inventive Examples (Relative to Comp Ex 1) **48-113% higher** (Relative to Comp Ex B) **57-127% higher**
Performance Conclusions - *Inventive Examples are:*	superior	superior	dramatically superior

NA = not available.
( ) provides the Example designation as set forth in Table 2.
* Impact strength values were corrected to 71,600 equivalent Molecular Weight for each Example.

C-40,121AU

Intrinsic Tear (Corrected)*

Table 4

Weight Percent of Polymer Representative of '013	38%	50%	72%
Inventive Examples			
A	**153** (AD1)	**224** (AD3)	**279** (AD2)
C	**205** (CD1)	**240** (CD3)	**350** (CD2)
E	**NA**	**253** (ED3)	**NA**
Comparative Examples			
B	**98** (BD1)	**107** (BD3)	**104** (BD2)
1	**94** (X1)	**103** (X3)	**126** (X2)
2	**NA**	**31** (X4)	**NA**
Calculations	Percent Relative Performance of Inventive Examples (Relative to Comp Ex B) **56-109% higher** (Relative to Comp Ex 1) **63-118% higher**	Percent Relative Performance of Inventive Examples (Relative to Comp Ex B) **109-136 % higher** (Relative to Comp Ex 1) **117-147 % higher** (Relative to Comp Ex 2) **623-716% higher**	Percent Relative Performance of Inventive Examples (Relative to Comp Ex B) **168-237% higher** (Relative to Comp Ex 1) **121-178% higher**
Performance Conclusions - *Inventive Examples are:*	dramatically superior	dramatically superior	dramatically superior

NA = not available.
( ) provides the Example designation as set forth in Table 2.
* Intrinsic tear values were corrected to 71,600 equivalent Molecular Weight for each Example.

Tensile Break Strength (Corrected)*

Table 5

Weight Percent of Polymer Representative of '013	38%	50%	72%
Inventive Examples			
A	**1754** (AD1)	**2188** (AD3)	**3183** (AD2)
C	**1781** (CD1)	**3325** (CD3)	**3031** (CD2)
E	**NA**	**2870** (ED3)	**NA**
Comparative Examples			
B	**1981** (BD1)	**1571** (BD3)	**2186** (BD2)
1	**1546** (X1)	**1468** (X3)	**2427** (X2)
2	**NA**	**1383** (X4)	**NA**
Calculations	Percent Relative Performance of Inventive Examples (Relative to Comp Ex B) **10-11% lower** (Relative to Comp Ex 1) **13-15% higher**	Percent Relative Performance of Inventive Examples (Relative to Comp Ex B) **39-112% higher** (Relative to Comp Ex 1) **49-126% higher** (Relative to Comp Ex 2) **58-140% higher**	Percent Relative Performance of Inventive Examples (Relative to Comp Ex B) **39-46% higher** (Relative to Comp Ex 1) **25-31% higher**
Performance Conclusions - *Inventive Examples are*:	similar	dramatically superior	superior

NA = not available.
( ) provides the Example designation as set forth in Table 2.
* Tensile break strength values were corrected to 71,600 equivalent Molecular Weight for each Example.

C-40,121AU

1505

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1996
& TRADEMARK

PATENT

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

MAR 15 1996
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Applicants:	Pak-Wing Steve Chum et al.
Serial No.:	08/544,497
Attorney's Docket No. :	C-40,121AU
Filed:	October 18, 1995
For:	FABRICATED ARTICLES MADE FROM ETHYLENE POLYMER BLENDS

HEREBY CERTIFY THAT THIS CORRESPONDENCE IS BEING DEPOSITED WITH THE UNITED STATES POSTAL SERVICE AS FIRST CLASS MAIL WITH SUFFICIENT POSTAGE IN AN ENVELOPE ADDRESSED TO: COMMISSIONER OF PATENTS AND TRADEMARKS, WASHINGTON, D.C. 20231, on March 11, 1996
DATE OF DEPOSIT

Margaret Greene
PRINT OR TYPE NAME OF PERSON SIGNING CERTIFICATE

Margaret Greene
SIGNATURE OF PERSON SIGNING CERTIFICATE

March 11, 1996
DATE OF SIGNATURE

Hon. Commissioner of Patents & Trademarks
Washington, D.C. 20231

Sir:

INFORMATION DISCLOSURE STATEMENT UNDER 37 CFR 1.56

Pursuant to Applicant's duty of disclosure under 37 CFR 1.56, listed on the attached PTO-1449 are those patents, publications and other information known to the Applicants which were considered during the drafting of the claims of the above-identified application and/or the Applicants became aware of after the original filing of the above-identified application. One copy of each listed document is attached.

This application is a continuation application of USSN 08/378,998, filed January 27, 1995, now abandoned, which was a continuation application of USSN 08/054,379, now abandoned, and it is also related to the following applications:

USSN	Filing Date
08/327,156	October 21, 1994
08/010,958	January 29, 1993
08/239,495	May 9, 1994
08/239,496	May 9, 1994
07/776,130	October 15, 1991
07/939,281	September 2, 1992
08/289,985	August 12, 1994
08/084,054	March 7, 1995
08/344,262	November 23, 1994
07/945,034	September 15, 1992
08/417,626	April 6, 1995

Copies of Form 1449 for USSN 08/010,958; 08/239,496; 07/776,130; 07/939,281; 08/289,985; 08/084,054; 08/344,262; and 07/945,034 are attached together with copies of supplemental submissions for these related applications. Copies of the references considered relevant by the Applicants, as well as copies of references cited during the examination of the related applications identified above, including USSN 08/054,379 and 08/327,156, are available in their respective files. However, if the Examiner requires an additional copy of any of these related references, the Applicants will provide such upon request.

The Applicants respectfully request that the documents listed on the attached Form 1449 and related references be considered by the Examiner, that the various references be made of record in the present application, and that an initialed copy of the attached Form 1449 be returned to the undersigned in accordance with MPEP 609.

If there is a charge involved in this submission, please charge our account, Account No. 04-1512, accordingly.

Respectfully submitted,

By _____
Osborne K. McKinney
Registration No. 40,084
Phone: (409) 238-7889

Dated: March 8, 1996

The Dow Chemical Company
Patent Department
Building B-1211
Freeport, Texas 77541
OKM/okm

FORM PTO 1449 (modified)	Atty. Docket No. C-40121-AU	Serial No. 08/544,497
LIST OF REFERENCES CITED BY APPLICANT	Applicant: Pak-Wing Steve Chum et al.	
	Filing Date: 10-18-95	Group: 1505

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RECEIVED MAR 15 1996

U.S. PATENT DOCUMENTS

Examiner Initial		Document Number	Date	Name	Class	Sub-class	Filing Date if Appropriate
DW	AA	3,998,914	12-21-76	Lillis et al.	260	897	
	AB	4,405,774	09-20-83	Miwa et al.	526	348.2	
	AC	4,429,079	01-31-84	Shibata et al.	525	240	
	AD	4,438,238	03-20-84	Fukushima et al.	525	240	
	AE	4,981,760	01-01-91	Naito et al.	428	523	
	AF	5,189,106	02-23-93	Morimoto et al.	525	240	
	AG	5,206,075	04-27-93	Hodgson, Jr.	428	216	
	AH	5,218,071	06-08-93	Tsutsui et al.	526	348	
	AI	5,272,236	12-21-93	Lai et al.	526	348.5	
	AJ	5,278,272	01-11-94	Lai et al.	526	348.5	
DW	AK	5,374,700	12-20-94	Tsutsui et al.	526	348.3	

FOREIGN PATENT DOCUMENTS

		Document Number	Date	Country	Class	Sub-class	Translation	
DW	BA	CA 2,008,315	07-24-90	Canada	C08F	4/16		
	BB	EP 0 447 035 A3	09-18-91	EPO	C08F	297/08		
	BC	WO 90/03414 A1	04-05-90	PCT	C08L	23/08		
	BD	WO 93/08221 A2	04-29-93	PCT	C08F	10/00		
DW	BE	WO 94/06857 A1	03-31-94	PCT	C08L	23/04		

OTHER REFERENCES *(Including Author, Title, Date, Pertinent Pages, Etc.)*

DW	C A		Modern Methods of Polymer Characterization, pp. 103-112, (1991) "Measurement of Long-Chain Branch Frequency in Synthetic Polymers", by Alfred Rudin
	C B		The Journal of Chemical Physics, vol. 17, no. 12, December (1949), pp. 1301-1314, "The Dimensions of Chain Molecules Containing Branches and Rings", by Bruno H. Zimm and Walter H. Stockmayer
	C C		Antec 93-Be In That Number, New Orleans, May 9-13, (1993), vol. II, "Dow Constrained Geometry Catalyst Technology (CGCT): New Rules For Ethylene a-Olefins Interpolymers-Controlled Rheology Polyolefins", pp. 1188-1192, by S. Lai and G. W. Knight
	C D		Journal of Rheology, (1986), pp. 340-341, 344-345, 348-349, 352-353, 356-357, "Wall Slip in Viscous Fluids and Influence of Materials of Construction", by A. V. Ramamurthy
	C E		Rheometers for Molten Plastics, (1982), pp. 97-99, by John Dealy
DW	C F		Polymer Engineering and Science, vol. 17, No. 11, November (1977), pp. 769-774, "Correlation of Low Density Polyethylene Rheological Measurements with Optical and Processing Properties", by M. Shida, R. N. Shroff, and L. V. Cancio

EXAMINER	DATE CONSIDERED
David W	8-2-96

*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609; Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

FORM PTO 1449 (modified) LIST OF REFERENCES CITED BY APPLICANT	Atty. Docket No. C-40121-AU	Serial No. 08/544,497
	Applicant: Pak-Wing Steve Chum et al.	
	Filing Date: 10-18-95	Group: 1505

U.S. PATENT DOCUMENTS

Examiner Initial		Document Number	Date	Name	Class	Sub-class	Filing Date If Appropriate
DW	AA	5,395,471	03-07-95	Obijeski et al.	156	244.11	
	AB	5,395,810	03-07-95	Shamshoum et al.	502	113	
	AC	5,408,004	04-18-95	Lai et al.	525	240	
DW	AD	5,444,145	08-22-95	Brant et al.	526	348.3	
	AE						
	AF						
	AG						
	AH						
	AI						
	AJ						
	AK						

FOREIGN PATENT DOCUMENTS

		Document Number	Date	Country	Class	Sub-class	Translation	
DW	BA	WO 94/12568 A1	06-09-94	PCT	C08L	23/08		
	BB	WO 95/13321 A1	05-18-95	PCT	C08L	23/04		
	BC	WO 93/13143 A1	07-08-93	PCT	C08F	10/02		
	BD	WO 93/03093 A1	02-18-93	PCT	C08L	23/04		
DW	BE							

OTHER REFERENCES *(Including Author, Title, Date, Pertinent Pages, Etc.)*

DW	C A		"A Review of High Resolution Liquid ^{13}Carbon Nuclear Magnetic Resonance Characterizations of Ethylene-Based Polymers", pp. 201-317, by James C. Randall
	C B		ACS Symposium Series, no. 142, pp. 94-118. " Characterization of Long-Chain Branching in Polyethylenes Using High -Field Carbon-13 NMR", by J. C. Randall
	C C		SPE Regional Technical Conference, Quaker Square Hilton, Akron, Ohio, October 1-2, (1985), pp. 107-119, "The Role of Comonomer Type and Distribution in LLDPE Product Performance", by L. D. Cady
	C D		Journal of Polymer Science:Polymer Physics Edition, vol. 20, pp. 441-455 (1982), "Determination of Branching Distributions in Polyethylene and Ethylene Copolymers", by L. Wild, T. R. Ryle, D. C. Knobeloch, and I. R. Peat
	C E		Antec 93, pp. 58-62, " Flexomer Polyolefins, A Unique Class of Ethylene Copolymers for Low Temperature Film Applications", by D. C. Eagar, G. E. Ealer, S. A. Bartocci and D. M. Kung
DW	C F		Worldwide Metallocene Conference MetCon '94, May 25-27, (1994), "Improved Processing and Performance Balance of Polyethylene Resins Using Metallocene Catalyst Technology", by Mark A. Wendorf

EXAMINER	DATE CONSIDERED
David Wu	8-2-96

*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609; Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

FORM PTO 1449 (modified) LIST OF REFERENCES CITED BY APPLICANT	Atty. Docket No. C-40121-AU	Serial No. 08/544,497
	Applicant: Pak-Wing Steve Chum et al.	
	Filing Date: 10-18-95	Group: 1505

U.S. PATENT DOCUMENTS

Examiner Initial		Document Number	Date	Name	Class	Sub-class	Filing Date If Appropriate
	AA						
	AB						
	AC						
	AD						
	AE						
	AF						
	AG						
	AH						
	AI						
	AJ						
	AK						

FOREIGN PATENT DOCUMENTS

		Document Number	Date	Country	Class	Sub-class	Translation	
	BA							
	BB							
	BC							
	BD							
	BE							

OTHER REFERENCES *(Including Author, Title, Date, Pertinent Pages, Etc.)*

dw	C A		Speciality Plastics Conference 1990-The Raw Materials Scenario for PE and PP Film Applications and Markets, December 3-4, "High Value Added Film Using an Olefin Based Elastomer", by M. Tanaka
	C B		Packaging Technology and Engineering, April 1994, pp. 34-37, "Single-Site Catalysts Produce Tailor-Made, Consistent Resins", by David F. Simon
dw	C C		"Polyolefin Modification with EXACT™ Plastomers", (before 7/1994 and after 9/1992), pp. 539-564, by T. C. Yu, G. J. Wagner
	C D		
	C E		
	C F		

EXAMINER	David Wu	DATE CONSIDERED	8-2-96

*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609; Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

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PATENT

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

MAR 15 1996
RECEIVED

Applicants: Pak-Wing Steve Chum et al.

Serial No.: 08/544,497

Attorney's Docket No. : C-40,121AU

Filed: October 18, 1995

For: FABRICATED ARTICLES MADE FROM ETHYLENE POLYMER BLENDS

HEREBY CERTIFY THAT THIS CORRESPONDENCE IS BEING DEPOSITED WITH THE UNITED STATES POSTAL SERVICE AS FIRST CLASS MAIL WITH SUFFICIENT POSTAGE IN AN ENVELOPE ADDRESSED TO: COMMISSIONER OF PATENTS AND TRADEMARKS, WASHINGTON, D.C. 20231, on March 11, 1996
DATE OF DEPOSIT

Margaret Greene
PRINT OR TYPE NAME OF PERSON SIGNING CERTIFICATE

Margaret Greene
SIGNATURE OF PERSON SIGNING CERTIFICATE

March 11, 1996
DATE OF SIGNATURE

Hon. Commissioner of Patents & Trademarks
Washington, D.C. 20231

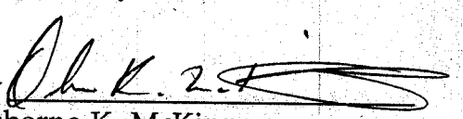
Sir:

TRANSMITTAL LETTER

As indicated in the Second Pre-Examination Amendment submitted on February 2, 1996, Applicants submit hereunder a Supplemental Declaration and Power of Attorney, pursuant to 37 CFR § 1.67 (a), declaring that the above-identified application is a continuation-in-part application of USSN 07/939,281, now U.S. Patent 5,278,272.

If there is a charge involved in this submission, please charge our account, Account No. 04-1512, accordingly.

Respectfully submitted,

By 
Osborne K. McKinney
Registration No. 40,084
Phone: (409) 238-7889

Dated: March 8, 1996

The Dow Chemical Company
Patent Department
Building B-1211
Freeport, Texas 77541
OKM/okm

This Declaration and Power of Attorney 1000 is in the ENG nguage and has the same meaning in other languages with the s 000 number.

SUPPLEMENTAL DECLARATION AND POWER OF ATTORNEY

USA/PCT

(a) My residence and Citizenship are as stated below my name. My P.O. (mailing) address is the same as my residence unless otherwise stated.

(b) I verily believe I am/we are the original, first and sole/joint inventor(s) of the subject matter which is embraced by and for which a patent is sought on the invention entitled: **FABRICATED ARTICLES MADE FROM ETHYLENE POLYMER BLENDS**

the specification of which: is attached hereto (C-).
(mark one) X was filed on **October 18, 1995** as (C- **40,121-AU**)
Application No. **08/544,497**
and was amended on **February 2, 1996**

MAIL ROOM MAR 13 1996

MAR 15 1996 RECEIVED #6

(c) I hereby state that I have reviewed and understand the contents of the above identified specification, including the claims, as amended by any amendment referred to above.

(d) I acknowledge my duty under 37 CFR 1.56 to disclose to the U.S. Patent and Trademark Office all information known to me to be material to patentability as defined in 37 CFR 1.56(b). I acknowledge the same duty of disclosure with respect to information which is first published or which arises after the filing date of any prior application claimed under paragraph (f) to the extent that the subject matter of any claim of this application is not disclosed in the prior United States application.

(e) I hereby claim foreign priority benefits under Title 35, United States Code § 119 of any foreign application(s) for patent or inventor's certificate listed below and have also identified below any foreign application for patent or inventor's certificate having a filing date before that of the application on which priority is claimed:

PRIOR FOREIGN APPLICATION(S)			PRIORITY CLAIMED
Number	Country	Day/Month/Year Filed	YES NO

(f) I hereby Claim the benefit under Title 35, United States Code § 120 of any United States applications(s) listed below:

Application Serial No.	Filing Date	Status (Patented, Pending, Abandoned)
07/776,130	October 15, 1991	Patented
07/939,281	September 2, 1992	Patented

I hereby appoint the following attorney(s) and/or agent(s) to prosecute this application and to transact all business in the Patent and Trademark Office connected therewith. Address all correspondence to: **THE DOW CHEMICAL COMPANY, Patent Dept., B-1211, Freeport, TX 77541** and telephonic communications to the following:

(1)	**Osborne K. McKinney**	(TEL. **(409)238-7889**	Reg. No. **P-40,084**
(2)	**Stephen P. Krupp**		Reg. No. **34,366**
(3)	**L. Wayne White**		Reg. No. **25,415**
(4)	**Glenn H. Korfhage**		Reg. No. **27,204**
(5)	**Stephen S. Grace**		Reg. No. **24,834**

This appointment, including the right to delegate this appointment, shall also apply to the same extent to any proceedings established by the Paten Cooperation Treaty.

I hereby declare that all statements made herein of my own knowledge are true and that all statements made on information and belief are believ to be true; and further that these statements were made with the knowledge that willful false statements and the like so made are punishable by fine o imprisonment, or both under Title 18, United States Code § 1001 and that such willful false statements may jeopardize the validity of the application or any patent issued thereon.

Inventor(s):

At **Freeport, Texas 77541, U.S.A**
this 20 day of February 19 96
Signature Pak-Wing Steve Chum
Full Name: **Pak-Wing Steve Chum**
Residence: **126 Juniper Street**
City, State, Zip: **Lake Jackson, Texas 77566**
Country: **United States of America**
Citizenship: **United States of America**
P.O. Address: **Same as Residence**

At **Freeport, Texas 77541, U.S.A.**
this 22nd day of February 19 96
Signature Ronald P. Markovich
Full Name: **Ronald P. Markovich**
Residence: **18800 Egret Bay Boulevard, #1601**
City, State, Zip: **Houston, Texas 77058**
Country: **United States of America**
Citizenship: **United States of America**
P.O. Address: **Same as Residence**

At **Freeport, Texas 77541, U.S.A.**
this 15 day of February 19 96
Signature George W. Knight
Full Name: **George W. Knight**
Residence: **1618 North Road**
City, State, Zip: **Lake Jackson, Texas 77566**
Country: **United States of America**
Citizenship: **United States of America**
P.O. Address: **Same as Residence**

At **Freeport, Texas 77541, U.S.A.**
this 22nd day of February 19 96
Signature Shih-Yaw Lai
Full Name: **Shih-Yaw Lai**
Residence: **4523 Bermuda Drive**
City, State, Zip: **Sugar Land, Texas 77479**
Country: **United States of America**
Citizenship: **United States of America**
P.O. Address: **Same as Residence**

( ) Additional names and signatures are attached.

R-10/88

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PATENT

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

A APR 17 1996 RECEIVED

Applicants: Pak-Wing Steve Chum et al.

Serial No.: 08/544,497

Attorney's Docket No. : C-40,121AU

Filed: October 18, 1995

For: FABRICATED ARTICLES MADE FROM ETHYLENE POLYMER BLENDS

#7

HEREBY CERTIFY THAT THIS CORRESPONDENCE IS BEING DEPOSITED WITH THE UNITED STATES POSTAL SERVICE AS FIRST CLASS MAIL WITH SUFFICIENT POSTAGE IN AN ENVELOPE ADDRESSED TO: COMMISSIONER OF PATENTS AND TRADEMARKS, WASHINGTON, D.C. 20231, on April 8, 1996
DATE OF DEPOSIT

Margaret Greene
PRINT OR TYPE NAME OF PERSON SIGNING CERTIFICATE

Margaret Greene
SIGNATURE OF PERSON SIGNING CERTIFICATE

April 8, 1996
DATE OF SIGNATURE

Hon. Commissioner of Patents & Trademarks
Washington, D.C. 20231

Sir:

INFORMATION DISCLOSURE STATEMENT ATTACHMENTS

Copies of Form 1449 for USSN 08/010,958; 08/239,496; 07/776,130; 07/939,281; 08/289,985; 08/084,054; 08/344,262; and 07/945,034 are attached together with copies of supplemental submissions for these related applications.

These documents were inadvertently omitted from the Information Disclosure Statement mailed the Patent and Trademark Office on March 11, 1996.

We regret any inconvenience this error may have caused the Examiner.

If there is a charge involved in this submission and error, please charge our account, Account No. 04-1512, accordingly.

Respectfully submitted,

By
Osborne K. McKinney
Registration No. 40,084
Phone: (409) 238-7889

Dated: April 8, 1996

The Dow Chemical Company
Patent Department
Building B-1211
Freeport, Texas 77541
OKM/mfg

FORM 1449

INFORMATION DISCLOSURE CITATION
(Use several sheets if necessary)

ATTY. DOCKET NO.: C-40,121	SERIAL NO.: ~~07/776,130~~ 08/544497
APPLICANT: Shih-Yaw Lai et al.	
FILING DATE: 10-15-91	GROUP: 1505

MAIL ROOM APR 10 1996 PAT. & TRADEMARK OFF.
RECEIVED APR 17 1996 GROUP 1500

U.S. PATENT DOCUMENTS

*EXAMINER INITIAL		DOCUMENT NUMBER	DATE	NAME	CLASS	SUBCLASS	FILING DATE IF APPROPRIATE
		5,082,908	1-21-92	Imai et al.			
		5,059,481	10-22-91	Lustig et al.			
		4,967,898	12-11-90	Lustig et al.			
		4,969,951	10-30-90	Benham et al.			
		4,963,388	10-16-90	Benoit			
		4,833,017	5-23-89	Benoit			
		4,829,039	5-2-89	Stuart			
		4,803,253	2-7-89	McDaniel et al.			
		4,692,386	9-8-87	Schinkel et al.			
		4,690,991	9-1-87	Seppl			

FOREIGN PATENT DOCUMENTS

*EXAMINER INITIAL		DOCUMENT NUMBER	DATE	COUNTRY	CLASS	SUBCLASS	TRANSLATION YES	TRANSLATION NO

OTHER DOCUMENTS (Including Author, Title, Date, Pertinent Pages, Etc.)

			Derwent 90-239017/31

EXAMINER:	DATE CONSIDERED:

*EXAMINER: Initial if citation considered, whether or not citation is in conformance with MPEP 609; Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

All the references in sheet 1 to sheet 14 were not considered in the prosecution of the parent case 07/776,130 DS 12/13/96

FORM 1449

INFORMATION DISCLOSURE CITATION
(Use several sheets if necessary)

ATTY. DOCKET NO.: C-40,121
SERIAL NO.: 07/776,130
APPLICANT: Shih-Yaw Lai et al.
FILING DATE: 10-15-91
GROUP: 1505

RECEIVED APR 17 1995

U.S. PATENT DOCUMENTS

*EXAMINER INITIAL		DOCUMENT NUMBER	DATE	NAME	CLASS	SUBCLASS	FILING DATE IF APPROPRIATE
		4,668,575	5-26-87	Schinkel et al.			
		4,667,772	5-19-87	Schinkel et al.			
		4,624,991	11-25-86	Haas			
		4,588,794	5-13-86	Oda			
		4,482,687	11-13-84	Noshay et al.			
		4,390,677	6-28-83	Karol et al.			
		4,363,904	12-14-82	Fraser et al.			
		4,359,561	11-16-82	Fraser et al.			
		4,303,771	12-01-81	Wagner et al.			

FOREIGN PATENT DOCUMENTS

*EXAMINER INITIAL		DOCUMENT NUMBER	DATE	COUNTRY	CLASS	SUBCLASS	TRANSLATION YES	TRANSLATION NO

OTHER DOCUMENTS *(Including Author, Title, Date, Pertinent Pages, Etc.)*

EXAMINER: DATE CONSIDERED:

*EXAMINER: Initial if citation considered, whether or not citation is in conformance with MPEP 609; Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

FORM 1449

INFORMATION DISCLOSURE CITATION
(Use several sheets if necessary)

ATTY. DOCKET NO.: C-40,121	SERIAL NO.: 07/776,130
APPLICANT: Shih-Yaw Lai et al.	
FILING DATE: 10-15-91	GROUP: 1505

RECEIVED APR 17 1996

U.S. PATENT DOCUMENTS

*EXAMINER INITIAL		DOCUMENT NUMBER	DATE	NAME	CLASS	SUBCLASS	FILING DATE IF APPROPRIATE
		4,302,566	11-24-81	Karol et al.			
		4,259,468	3-31-81	Kajiura et al.			
		4,011,384	3-8-77	Baxmann et al.			
		5,084,927	2-4-92	Parkevich			
		5,084,039	1-28-92	Cancio et al.			
		5,073,599	12-17-91	Genske			
		5,073,452	12-17-91	Satou et al.			
		5,068,489	11-26-91	Edwards et al.			
		5,064,796	11-12-91	Speca			
		5,055,534	10-8-91	Theobald			
		5,055,533	10-8-91	Allen et al.			

FOREIGN PATENT DOCUMENTS

*EXAMINER INITIAL		DOCUMENT NUMBER	DATE	COUNTRY	CLASS	SUBCLASS	TRANSLATION YES	TRANSLATION NO

OTHER DOCUMENTS *(Including Author, Title, Date, Pertinent Pages, Etc.)*

EXAMINER: DATE CONSIDERED:

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Rev. 9.88

FORM 1449

INFORMATION DISCLOSURE CITATION
(Use several sheets if necessary)

ATTY. DOCKET NO :	SERIAL NO.
C-40,121	07/776,130
APPLICANT: Shih-Yaw Lai et al	
FILING DATE: 10-15-91	GROUP: 1506

APR 17 1996 RECEIVED

U.S. PATENT DOCUMENTS

*EXAMINER INITIAL		DOCUMENT NUMBER	DATE	NAME	CLASS	SUBCLASS	FILING DATE IF APPROPRIATE
		5 0 4 7 4 6 8	9-10-91	Lee et al.			
		R E 3 3 6 8 3	9-3-91	Allen et al.			
		5 0 4 3 0 4 0	8-27-91	Butler			
		5 0 4 1 3 1 6	8-20-91	Parnell et al.			
		5 0 2 5 0 7 2	6-18-91	Nowlin et al.			
		5 0 2 4 7 9 9	6-18-91	Harp et al.			
		5 0 1 5 5 1 1	5-14-91	Treybig et al.			
		5 0 1 3 8 0 1	5-7-91	Cozewith et al.			
		5 0 0 6 3 9 6	4-9-91	VanBortel et al.			

FOREIGN PATENT DOCUMENTS

*EXAMINER INITIAL		DOCUMENT NUMBER	DATE	COUNTRY	CLASS	SUBCLASS	TRANSLATION YES	TRANSLATION NO

OTHER DOCUMENTS (*Including Author, Title, Date, Pertinent Pages, Etc.*)

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FORM 1449

INFORMATION DISCLOSURE CITATION
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ATTY. DOCKET NO.: C-40,121	SERIAL NO.: 07/776,130
APPLICANT: Shih-Yaw Lai et al.	
FILING DATE: 10-15-91	GROUP: 1505

PATENT & TRADEMARK OFFICE APR 17 1992

U.S. PATENT DOCUMENTS

*EXAMINER INITIAL		DOCUMENT NUMBER	DATE	NAME	CLASS	SUBCLASS	FILING DATE IF APPROPRIATE
		4 9 8 3 4 4 7	1-8-91	Crass et al.			
		4 9 8 1 8 2 6	1-1-91	Speca			
		4 9 7 5 3 1 5	12-4-90	Bolthe et al.			
		4 9 6 8 7 6 5	11-6-90	Yagi et al.			
		4 9 2 5 7 2 8	5-15-90	Crass et al.			
		4 9 2 1 9 2 0	5-1-90	Collomb-Ceccarini et al.			
		4 8 9 2 9 1 1	1-9-91	Genske			
		4 8 8 8 3 1 8	12-19-89	Allen et al.			
		4 8 8 2 4 0 6	11-21-89	Cozewith et al.			

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RECEIVED APR 17 1992

U.S. PATENT DOCUMENTS

*EXAMINER INITIAL		DOCUMENT NUMBER	DATE	NAME	CLASS	SUBCLASS	FILING DATE IF APPROPRIATE
		4,876,321	10-24-89	Lo et al.			
		4,874,820	10-17-89	Cozewith et al.			
		4,857,611	8-15-89	Durand et al.			
		4,842,951	6-27-89	Yamada et al.			
		4,842,932	6-27-89	Schinkel			
		4,842,817	6-27-89	Janocha et al.			
		4,839,447	5-30-89	Cook et al.			
		4,830,926	5-16-89	Mostert			
		4,824,889	4-25-89	Mostert			
		4,808,635	2-28-89	Nguyen			

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		4,789,714	12-6-88	Cozewith et al.			
		4,788,232	11-29-88	Needham			
		4,780,264	10-25-88	Dohrer et al.			
		4,775,710	10-4-88	Dunski et al.			
		4,764,549	8-16-88	Greenhalgh et al.			
		4,762,898	8-9-88	Matsuura et al.			
		4,742,138	5-3-88	Kageyama			
		4,732,882	3-22-88	Allen et al.			
		4,729,971	2-2-88	Datta et al.			
		4,719,193	1-12-88	Levine et al.			
		4,716,207	12-29-87	Cozewith et al.			

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PATENT & TRADEMARK OFFICE U.S. DEPARTMENT OF COMMERCE

U.S. PATENT DOCUMENTS

*EXAMINER INITIAL		DOCUMENT NUMBER	DATE	NAME	CLASS	SUBCLASS	FILING DATE IF APPROPRIATE
		4,710,538	12-1-87	Jorgensen			
		4,690,992	9-1-87	Grubbs et al.			
		4,677,087	6-30-87	Lo et al.			
		4,676,922	6-30-87	Sommer			
		4,672,096	6-9-87	Nowlin			
		4,668,650	5-26-87	Lo et al.			
		4,666,999	5-19-87	Cook et al.			
		4,627,971	12-16-86	Candlin et al.			
		4,626,467	12-2-86	Hostetter			
		4,618,662	10-21-86	Nowlin			

FOREIGN PATENT DOCUMENTS

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*EXAMINER INITIAL		DOCUMENT NUMBER	DATE	NAME	CLASS	SUBCLASS	FILING DATE IF APPROPRIATE
		4,599,391	7-8-86	Yamamoto et al.			
		4,593,009	6-3-86	Nowlin			
		4,587,318	5-6-86	Inoue et al.			
		4,474,740	4-29-86	Gross et al.			
		4,568,713	2-4-86	Hansen et al.			
		4,547,555	10-15-85	Cook et al.			
		4,519,968	5-28-85	Klaus et al.			
		4,513,038	4-23-85	Anthony			
		4,505,970	3-19-85	Craver			

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RECEIVED APR 17 1996 GROUP 1500

U.S. PATENT DOCUMENTS

*EXAMINER INITIAL		DOCUMENT NUMBER	DATE	NAME	CLASS	SUBCLASS	FILING DATE IF APPROPRIATE
		4 4 6 7 0 6 5	8-21-84	Williams et al.			
		4 4 6 1 7 9 2	7-24-84	Anthony			
		4 4 5 4 2 8 1	6-12-84	Heitz et al.			
		4 4 5 2 9 5 8	6-5-84	Chester et al.			
		4 4 2 7 5 7 3	1-24-84	Miles et al.			
		4 4 2 4 1 3 8	1-3-84	Candlin et al.			
		4 4 1 0 6 4 9	10-18-83	Cieloszyk			
		4 3 8 3 0 9 5	5-10-83	Goeke et al.			
		4 3 7 9 1 9 7	4-5-83	Cipriani et al.			
		4 3 7 0 4 5 6	1-25-83	George			
		4 3 5 4 0 0 9	10-12-82	Goeke et al.			

FOREIGN PATENT DOCUMENTS

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*EXAMINER INITIAL		DOCUMENT NUMBER	DATE	NAME	CLASS	SUBCLASS	FILING DATE IF APPROPRIATE
		5,053,538	10-8-91	Sheth et al.			
		5,019,315	5-28-91	Wilson			
		4,996,094	2-26-91	Dutt			
		4,959,436	9-25-90	Cozewith et al.			
		4,923,750	5-8-90	Jones			
		4,883,853	11-28-89	Hobes et al.			
		4,874,820	10-17-89	Cozewith et al.			
		4,820,589	4-11-89	Dobreski et al.			

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*EXAMINER INITIAL		DOCUMENT NUMBER	DATE	NAME	CLASS	SUBCLASS	FILING DATE IF APPROPRIATE
		4,792,595	12-20-88	Cozewith et al.			
		4,720,427	1-19-88	Clauson et al.			
		4,649,001	3-10-87	Nakamura et al.			
		4,617,247	10-14-86	Mueller			
		4,613,474	9-23-86	Wagner et al.			
		4,598,128	7-1-86	James et al.			
		4,597,920	7-1-86	Golike			
		4,588,650	5-13-86	Mientus et al.			
		4,564,559	1-14-86	Wagner			

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*EXAMINER INITIAL		DOCUMENT NUMBER	DATE	NAME	CLASS	SUBCLASS	FILING DATE IF APPROPRIATE
		4,563,504	1-7-86	Hert et al.			
		4,551,380	11-5-85	Schoenberg			
		4,532,189	7-30-85	Mueller			
		4,514,465	4-30-85	Schoenberg			
		4,486,579	12-4-84	Machon et al.			
		4,485,217	11-27-84	Gunter et al.			
		4,466,426	8-7-84	Anthony			
		4,463,153	7-31-84	Mizutani et al.			
		4,432,430	3-20-84	Kashiwa et al.			
		4,418,114	11-29-83	Briggs et al.			

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FORM 1449

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U.S. PATENT DOCUMENTS

*EXAMINER INITIAL		DOCUMENT NUMBER	DATE	NAME	CLASS	SUBCLASS	FILING DATE IF APPROPRIATE
		4,399,180	8-16-83	Briggs			
		4,380,567	4-19-83	Shigemoto			
		4,367,256	1-4-83	Biel			
		4,349,648	9-14-82	Jorgensen et al.			
		4,346,834	8-31-82	Mazumdar			
		4,340,641	7-20-82	Weiner			
		4,340,640	7-20-82	Weiner			
		4,339,496	7-13-82	Weiner			
		4,339,493	7-13-82	Weiner			
		4,328,328	5-4-82	Minami et al.			
		4,303,710	12-1-81	Bullard et al.			

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*EXAMINER INITIAL		DOCUMENT NUMBER	DATE	NAME	CLASS	SUBCLASS	FILING DATE IF APPROPRIATE
DW		4 4 0 5 7 7 4	9-20-83	Miwa et al.			
		4 5 1 0 3 0 3	4-9-85	Oda et al.			
		4 6 6 8 7 5 2	5-26-87	Tominari et al.			
		4 9 8 7 2 1 2	1-22-91	Morterol et al.			
DW		5 0 8 4 5 4 0	1-28-92	Albizzati et al.			

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EXAMINER: David Wu DATE CONSIDERED: 12-13-96

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SERIAL NUMBER	FILING DATE	FIRST NAMED APPLICANT	ATTORNEY DOCKET NO.
08/544,497	10/18/95	CHUM P	C-40,121-A

15M2/0812

OSBORNE K MCKINNEY
2301 BRAZOSPORT BLVD B-1211
FREEPORT TX 77541

WU,D EXAMINER	
ART UNIT	PAPER NUMBER
1505	8

DATE MAILED:
08/12/96

Please find below a communication from the EXAMINER in charge of this application.

Commissioner of Patents

PTOL-90 (Rev. 6/84)

1 - PATENT APPLICATION FILE COPY

Office Action Summary	Application No. 08/544,497	Applicant(s) Chum et al.
	Examiner David Wu	Group Art Unit 1505

☐ Responsive to communication(s) filed on _____.

☐ This action is **FINAL**.

☐ Since this application is in condition for allowance except for formal matters, **prosecution as to the merits is closed** in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11; 453 O.G. 213.

A shortened statutory period for response to this action is set to expire *three* month(s), or thirty days, whichever is longer, from the mailing date of this communication. Failure to respond within the period for response will cause the application to become abandoned. (35 U.S.C. § 133). Extensions of time may be obtained under the provisions of 37 CFR 1.136(a).

Disposition of Claims

☒ Claim(s) *1, 3-8, 17, 19-23, and 31-35* is/are pending in the application.

Of the above, claim(s) _____ is/are withdrawn from consideration.

☐ Claim(s) _____ is/are allowed.

☒ Claim(s) *1, 3-8, 17, 19-23, and 31-35* is/are rejected.

☐ Claim(s) _____ is/are objected to.

☐ Claims _____ are subject to restriction or election requirement.

Application Papers

☒ See the attached Notice of Draftsperson's Patent Drawing Review, PTO-948.

☐ The drawing(s) filed on _____ is/are objected to by the Examiner.

☐ The proposed drawing correction, filed on _____ is ☐ approved ☐ disapproved.

☐ The specification is objected to by the Examiner.

☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. § 119

☐ Acknowledgement is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d).

☐ All ☐ Some* ☐ None of the CERTIFIED copies of the priority documents have been

☐ received.

☐ received in Application No. (Series Code/Serial Number) _____.

☐ received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

*Certified copies not received: _____.

☐ Acknowledgement is made of a claim for domestic priority under 35 U.S.C. § 119(e).

Attachment(s)

☒ Notice of References Cited, PTO-892

☒ Information Disclosure Statement(s), PTO-1449, Paper No(s). *5 and 7*

☐ Interview Summary, PTO-413

☒ Notice of Draftsperson's Patent Drawing Review, PTO-948

☐ Notice of Informal Patent Application, PTO-152

--- SEE OFFICE ACTION ON THE FOLLOWING PAGES ---

15. Claims 1, 3-8, 17, 19-23, and 31-35 are rejected under 35 U.S.C. § 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

16. The recitation "greater than about" of claim 1, lines 15-18 is indefinite because it has been held that the term "about" allows some flexibility. ***Amgen, Inc. v. Chugai Pharmaceutical Co.***, 18 USPQ 2d. 1016, 1030 (Fed. Cir. 1991). The lower limit is unclear since the term has not yet been defined in the specification. Note also in claim 17 and 31-35.

17. The following is a quotation of the appropriate paragraphs of 35 U.S.C. § 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless --
> (e) the invention was described in a patent granted on an application for patent by another filed in the United States before the invention thereof by the applicant for patent, or on an international application by another who has fulfilled the requirements of paragraphs (1), (2), and (4) of section 371(c) of this title before the invention thereof by the applicant for patent.

18. The following is a quotation of 35 U.S.C. § 103 which forms the basis for all obviousness rejections set forth in this Office action:

> A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains.

> Patentability shall not be negatived by the manner in which the invention was made.
>
> Subject matter developed by another person, which qualifies as prior art only under subsection (f) or (g) of section 102 of this title, shall not preclude patentability under this section where the subject matter and the claimed invention were, at the time the invention was made, owned by the same person or subject to an obligation of assignment to the same person.

19. Claims 1, 3-8, 17, 19-23, and 31-35 are rejected under 35 U.S.C. § 102(e) as anticipated by or, in the alternative, under 35 U.S.C. § 103 as obvious over Lai et al. (U.S. Patent No. 5,408,004, hereinafter "Lai").

20. The Lai patent has a different inventive entity from that of the U.S. Patent No. 5,272,236. Further, a patentee cannot obtain the benefit of the filing date of an earlier application where the claims in issue could not have been made in the earlier application. It has been held that a patent application is entitled to the benefit of the filing date of an earlier filed application only if the disclosure of the earlier application provides support for the claims of the latter application, as required by 35 USC § 112. See ***In re Chu***, 36 USPQ 2d 1089, 1093 (CAFC 1995). Accordingly, Lai reference '004 is deemed to be a good 102(e) prior art.

21. Lai discloses polyolefin blends comprising at least 10 percent, preferably at least 30 percent of at least one linear or

substantially linear homogeneously branched polyethylene, such as one of a Tafmer TM, Exact TM or Insite TM (defined in column 3, lines 43-56), and the remainder of the blend comprises one or more heterogeneously branched polyethylene (defined in column 3, lines 3-14). See column 2, lines 51-56; column 4, lines 30-50; column 5, line 67 to column 6, line 15; column 6, line 54 to column 7, line 2; column 7, lines 23-31. In working examples 1-2, the polymer blend sample E-1 is prepared from a 50/50 of CGC resin (Sample C-1) and HDPE resin (Sample C-2), sample E-2 is also prepared from a 50/50 of CGC resin (Sample C-6) and HDPE resin (Sample C-7). Although Lai fails to disclose the property such as the slope of strain hardening coefficient of the substantially linear homogeneously branched polyethylene, in view of the same type of the polymer and made by the same technology taught by Lai reference and the instant disclosure, the Examiner has a reasonable basis to believe that Lai's substantially linear homogeneously branched polyethylene possesses substantially the same value of the slope of strain hardening coefficient. Since the PTO does not have proper means to conduct the analytical tests, the burden of proof is now shifted to Applicants to show otherwise. ***In re Best***, 195 USPQ 430 (CCPA 1977); ***In re Fitzgerald***, 205 USPQ 594 (CCPA 1980).

22. Even if the properties of the polymers of the instant claims and the prior art examples are not the same, it would

still have been obvious to one of ordinary skill in the art to make polymers having the claimed properties because it appears that the references generically embrace the claimed polymers and the person of ordinary skill in the art would have expected all embodiments of the references to work. Applicants have not demonstrated that the differences, if any, between the claimed product and the prods of the prior art examples give rise to unexpected results.

23. The 102/103 rejection based on WO '414 has now been removed in view of the Markovich Declaration filed on February 6, 1996.

24. Any inquiry concerning this communication or earlier communications from the examiner should be directed to David Wu whose telephone number is (703)308-2450. The examiner can normally be reached on weekdays from 8:00 am to 4:00 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Mr. Joseph Schofer, can be reached on (703) 308-2452. The fax phone number for this Group is (703) 305-5408.

David Wu

DAVID W. WU
PRIMARY EXAMINER
GROUP 1500

DWW
August 2, 1996