Poly-Olefin Waxes

YOUNG'S WAX

YOUNG'S CORPORATION

242-8, Yangjae-dong, Seocho-Ku, Seoul, Korea
Tel : 82-2-2057-0390, Fax : 82-2-2057-0399
E-mail : export@youngscorp.com Web. : www.youngscorp.com

< *YOUNG'S –WAX* >

We, YOUNG'S CORPORATION, are now newly introducing our new products, PE - WAX (Polyethylene wax) and PP – WAX (Polypropylene wax) as one of our CS-series products to domestic and foreign customers.
We have finally produce the YOUNG'S-WAX with our accumulative technology and know-how.
Widely used in plastic, rubber and electrical industry, up to in ink, paint, detergent and chemical engineering industry, wax becomes more important product then ever in general industrial field as raw material additive improving its efficiency.
We will do our utmost as one of your sincere business partner in the field of the wax.

< *Major Features of YOUNG'S – WAX* >

YOUNG'S - WAX, comprises a mid-molecular weight polyethylene, is made by a thermal cracking process.
YOUNG'S - WAX is more stable in quality than other synthetic and natural waxes, and a wide variety of grades are commercially available.
So, these grades are being used for a broad range of applications, including those in high technological areas such as toners for plain paper copying and film condensers as well as traditional uses inclusive of pigment dispersant, slip agents and mold release agents for the molding of various synthetic resins, modifiers for printing ink and paints, aids for textile treatment, etc.

< *Production Capacity* >

-. PE Wax 5,000 MTPY

-. PP Wax 5,000 MTPY

Properties	Testing Method	Unit	Polyethylene Wax				
			LDPE Type			HDPE Type	
			YJ-110N	YJ-120N	YJ-210N	YJ-140N	YJ-160N
Melt Viscosity	At 140℃, Brookfield Viscometer	cps.	200±50	400±50	1,100±100	400±50	500±50
Softening Point	Ring & Ball, ASTM D-5125	℃	103±3	107±3	110±5	118±3	120±3
Density	ASTM D-1505	g/㎤	0.92	0.92	0.93	0.95	0.95
Hardness	Penetrometer, ASTM D-5127	d-mm	> 5	> 5	> 3	> 2	> 2
Acid Value	ASTM D-1744	mg-KOH/g	Nil	Nil	Nil	Nil	Nil
Appearance	ASTM D-597	—	Powder	Powder	Powder	Powder	Powder

***. Other grades are also available upon customer's special request.**

YOUNG'S- Wax Splendid Characteristics

1. **Higher melting and softening points then natural and other synthetic waxes.**
2. **Excellent heat resistance and thermal stability.**
3. **Hardness equal to that of polyethylene and easy pulverize.**
4. **Superb chemical resistance and electrical insulation properties.**
5. **Good affinity to polar polymers, inorganic chemicals, metals, etc.**

Properties	Testing Method	Unit	Polyethylene Wax	Special Wax		
			Oxydized Type	L P	Mixed Type	
			LC301E	YJ-420F	YJ-810B	YJ-820C
Melt Viscosity	At 140℃, Brookfield Viscometer	cps.	180±0	> 100	120±50	220±50
Softening Point	Ring & Ball, ASTM D-5125	℃	98±3	110±10	125±3	140±3
Density	ASTM D-1505	g/㎤	0.92	0.95	0.94	0.94
Hardness	Penetrometer, ASTM D-5127	d-mm	> 5	> 2	> 2	> 2
Acid Value	ASTM D-1744	mg-KOH/g	16±2	Nil	10±2	Nil
Appearance	ASTM D-597	—	Yellowish Powder	Flake	Powder	Powder

***. Other grades are also available upon customer's special request.**

Properties	Testing Method	Unit	Polypropylene Wax			Polyethylene Wax	
			Homp - Polymer Type			Co - Polymer Type	
			YJ-520N	YJ-530N	YJ-525N	YJ-520NC	YJ-530NC
Melt Viscosity	At 140℃, Brookfield Viscometer	cps.	180±50	100±50	1,200±00	180±50	100±50
Softening Point	Ring & Ball, ASTM D-5125	℃	161±3	161±3	163±3	150±3	148±3
Density	ASTM D-1505	g/㎤	0.89	0.89	0.89	0.89	0.89
Hardness	Penetrometer, ASTM D-5127	d-mm	> 1	> 1	> 1	> 1	> 1
Acid Value	ASTM D-1744	mg-KOH/g	Nil	Nil	Nil	Nil	Nil
Appearance	ASTM D-597	—	Powder	Powder	Powder	Powder	Powder

***. Other grades are also available upon customer's special request.**

The uses of YOUNG'S-Wax

1. Pigment dispersion media
2. Color Master-Batch
3. Rubber/ Plastic processing additive
4. Hot-Melt Adhesive's Softening point improving additive
5. Traffic lane paint's softening point improving additive
6. Additive in road asphalt
7. Additive of jelly-compound for electric cable
8. Additive of printing ink and paint
9. Fabric softening additive
10. Activator and heteromorphic agent
11. Additive for other industries

Main Application to Wax

Application		Recommended Grade
Plastic	Master batches	210N, 120N, 170N
	PVC processing	301E, 810B
	Rubber processing	110N, 420F
	Polyurethane foam	140N, 160N
Polishes		301E, 520NC, 530N, 520N, 525N
Offset ink and Toner		520NC, 530NC, 502N, 530N, 525N
Paper Industries		301E, 530N, 520N, 525N
Others	Candle, Crayon etc.	110N, 420F
	Electrical Insulation Heat Resistance	140N
	Other industries	According to spec.

Recommended Grade (1)

Uses	Function	Performance and Effects	Recommended Grade
Pigment Dispersant	Compatibility	Good wetting to pigments with the result of dispersability -> Enables high-concentration masterbatching	210N, 120N, 170N
Slip Agent for PVC	Slip Properties	Well balanced in slip properties, coupled with its lasting effect.-> Bettered productivity, & saving a powder consumption	301E, 810B
Rubber Processing Aid	Releasability Viscosity Adjustment Compatibility	Releasability & flowability which betters the dispersability of fillers & pigments. -> Improvement in molding cycle & extrusion properties	110N, 420F
Release Agent Molded Articles	Releasability	Releasability to thermoplastics & thermoset resins -> Improvement in molding cycle and extrusion properties	140N, 160N, 820C
Hot-melt Additive	Heat Resistance Viscosity Adjustment	Heat resistance& flowability to hot-melt adhesives -> Improves quality in the area where heat resistance is required (Automotive & building material sectors)	140N, 530NC, 520NC
Electrical Insulation Agent	Electrical Insulation Heat Resistance	Excels in electrical properties and improves softening point -> Improve electrical insulation properties of film condensers	140N
Improver for Abrasion Resistance of Printing Ink	Resistance to Abrasion and Heat	Provides the abrasion resistance of printing ink surface & heat resistance -> Enhances the cleanness of printing ink.	301E, 530N, 520N, 525N

Recommended Grade (2)

Uses	Function	Performance and Effects	Recommended Grade
Additives for coating	Surface modification	Improving abrasion resistance, high durability and high quality of feeling for coating. (esp. wood coating)	140N, 160N, 301E
Polishes	Surface modification	Improve high gloss and quality spec. for automotive and flooring.	ALL
Improver for Paper Quality	Slipage, Surface Modification	Improves mixture resistance, gloss, surface hardness, anti-block properties & abrasion resistance. -> Gives a high-quality feeling together with improved durability	301E, 520NC, 530N, 520N, 525N
Processing agent for textile	Flowing, Flexibility	Improve flowing and flexibility in resin treatment textile. It also improve tear strength	301E
Toners for Plain Paper Copying	Releasability	Gives anti-offset to a fixing roll -> Improves the clearness of pictures	530NC, 520NC, 510NC, 530N, 520N
Compounding Agent for Natural Wax	Surface Modification	Increases surface hardness, improving softening point -> Improvement in performance of crayons & candles	110N, 420F

WAX EQUIVALENTS TO OTHERS

Nation	KOREA	USA		JAPAN		GERMANY	
Supplier	**YOUNG'S**	**Honey well**	**EAST MAN**	**MI TSUI**	**SANYO**	**CLA RIANT**	**BASF**
Trade Name	**YOUNG'S WAX**	**A-C Wax**	**EPOLE NE**	**HI Wax**	**SAN Wax**	**HST Wax**	**A Wax**
PE Wax (Non-Oxydized)	**YJ 110N**	617A	N 34	220P	171P		AM 3
	YJ 120N	6	N 14	320P	151P	PE 520	A
	YJ 140N	8	N 12	420P		PE130	AL 61
	YJ 150N		N 10	410P	161P		AH 6
	YJ 420F						
PE Wax (Oxydized)	**LC-301E**	629A	E 14	4202E	E 250P	PED 521	OA
PP(Homo) Wax	**YJ-520N**				330P		
PP(Co-Polymer) Wax	**YJ-520NC**				550P		
	YJ-530NC				660P		