# XANADU DOWON INDUSTRY

# PP HIPS ABS PMMA PC PC/ABS Nylon PBT PBT/Alloys

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### **Global Biz Partner**

- \* Millennium International Venture (Bangladesh)
- \* Rabo Recycling (EL Salvador)
- \* Cycle Link (Hongkong)
- \* Alpla Hightech (Thailand)
- \* HanGang INC (Vietnam)

Your specialized Compounding Partner

# Company Introduction

Dowon Industry is one of the fast growing compounding company in Korea.

Dowon was established in 1995 and continuously contributing many customers in automotive, electronics and other industrial fields.

We have been supporting customer to cost down it's production and fulfill customer's request at the same time.

Dowon has 4 production lines and has 7,000mt/year capacity.

We posses long time experience and abundant knowledge and know-hows for plastic compounding and providing valuable ideas to customers.

We have been doing business with several famous companies in Korea and getting good reputation.

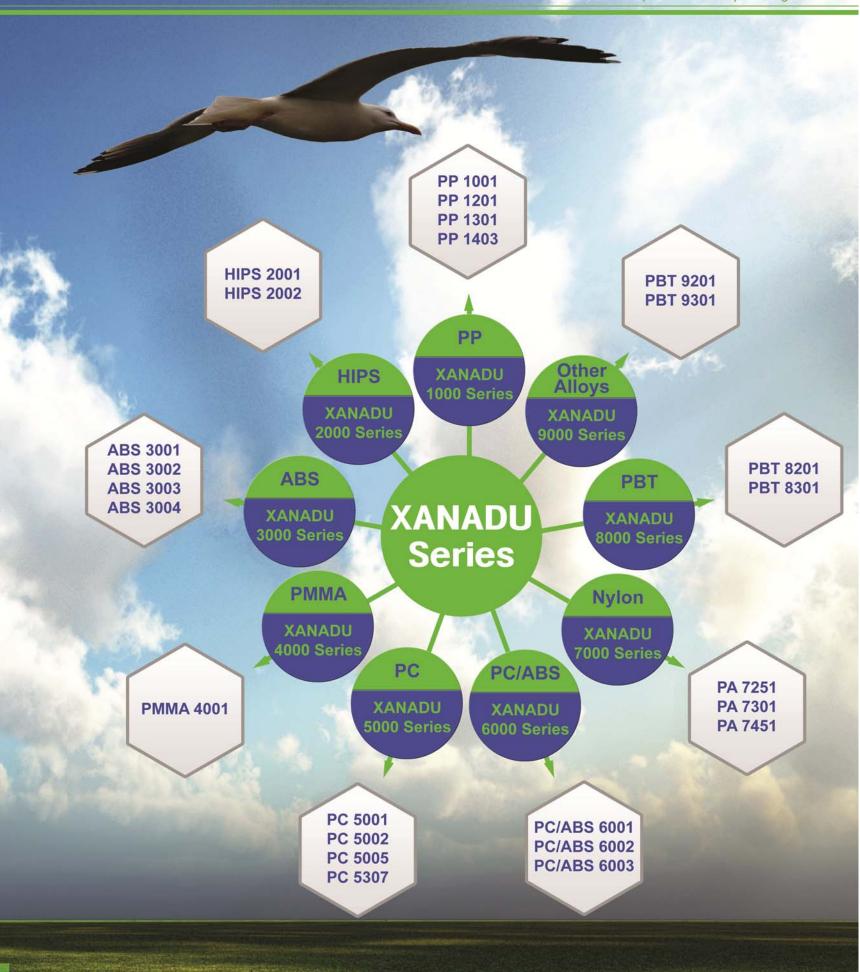
Now, Dowon is enlarging it's market to overseas and exporting it's product to Japan, China, Thailand, Vietnam, Bangladesh, and so on.

Hope we could make good cooperation with long term partner for mutual benefit.

Thanks, S.B Kim

# Company Histor

- Established in 1995.7.10
- Setup ABS Sheet Manufacturing Factory in 1998.5
  - Built New Factory in Pyungtaek in 2000.
  - Capacity Increase for ABS, PS (Capa: 5,000MT/Year) in 2002.
    - Get Government Registration for Overseas Trading in 2003.
      - Capacity Increase for PP Compound (Capa: 5,000MT/Year) in 2005.
        - Get License as Venture Capital in 2008.
        - Setup R&D Department in 2012.3













Becoming "your specialized compounding partner" is goal of Dowon Industry.

Classon is producing environmental friendly products which can contribute to make better and healthy life.

We will continuously develop more advanced material and new technology to meet several requests of customers all over the world.









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### **XANADU PP Series**

### XANADU PP 1004

XANADU PP 1004 series are impact reinforced PP compound with EPDM.









### **XANADU PP Series**

### XANADU PP/GF 1201/1301

XANADU PP 1201, 1301 series are Glass Fiber reinforced Polyolefin Grade. It has good dimensional stability and high flow characteristics.









### Application

**AUTOMOTIVE PART** 

Bumper Cover, Side Molding, Bumper Bracket, Mud Guard, Door Trim

ELECTRIC APPLIANCE

Tool Handle, Roller Skate Wheel

### Application

AUTOMOTIVE PART

Air-Conditioner Housing, Cooling Fan, Electrical Washer Pulley

INDUSTRIAL APPLICATION

Propeller Fan, Pump Housing, Fan Support

### Physical Property

### Physical Property

PROPE	RTIES	ASTM	UNIT	PP/RUBBER	PROPE	RTIES	ASTM	UNIT	PP/GF 20%	PP/GF 30%
Grade Na	ame			XANADU PP 1004	Grade N	ame			XANADU PP/GF 1201	XANADU PP/GF 1301
Density		D792		0.89	Density		D792		1.03	1.15
MI		D1238	g / 10min	15	MI		D1238	g / 10min	-	<u>.</u>
Impact Strength at 23℃		D256	kg·cm/cm	NB	Impact S	trength at 23℃	D256	kg·cm/cm	5.0	8.0
H.D.T	(18.6Kg/cm <sup>2</sup> )	D648	°C	87	H.D.T	(18.6Kg/cm <sup>2</sup> )	D648	°C	:=	¥.
11.0.1	( 4.6Kg/cm <sup>2</sup> )	D648	°C	<u>.</u>	( 4.6Kg/cm <sup>2</sup> )		D648	°C	150	158
V.S.T		D1525	°C	-	V.S.T		D1525	°C	~	
Tensile S	trength	D638	kg / cm <sup>2</sup>	180	Tensile Strength		D638	kg / cm <sup>2</sup>	730	780
Tensile E	longation	D638	%	> 500	Tensile Elongation		D638	%	10	9
Flexural	Strength	D790	kg / cm <sup>2</sup>	240	Flexural	Strength	D790	kg/cm <sup>2</sup>	980	1,180
Flexural I	Modulus	D790	kg / cm <sup>2</sup>	8,500	Flexural	Modulus	D790	kg / cm <sup>2</sup>	35,000	49,000
Flammab	Flammability (UL-94)			HB	Flammat	pility (UL-94)			НВ	НВ
Characte	Characteristics				Characte	eristics				

### **XANADU PP Series**

### XANADU PP/RUBBER/TALC 1108/1308

XANADU PP 1108, 1308 are TALC reinforced high impact PP.
It has excellent anti-scratch characteristics and dimensional stability with high impact resistance,.







### **XANADU HIPS Series**

### **XANADU HIPS 2001/2002**

XANADU HIPS is very widely used for home appliances such as TV, audio and speaker which need high flow and stiffness. General and flame retardant grades are available.









### Application

AUTOMOTIVE PART

Instrument Panel, Side Molding, Bumper Protector, Door Trim, Garnish

### Application

HOME APPLIANCE

TV Set, Tape Recorders, Vacuum Cleaners, Washing Machines, Air-Conditioner

### Physical Property

### Physical Property

PROPE	RTIES	ASTM	UNIT	PP/RUBBER/TALC 10%	PP/RUBBER/TALC 30%	PROPE	RTIES	ASTM	UNIT	HIPS 200	0 SERIES
Grade Na	Grade Name			XANADU PP 1108	XANADU PP 1308	Grade N	Grade Name			XANADU HIPS 2001	XANADU HIPS 2002
Density	Density			0.97	1.13	Density		D792		1.04	1.14
MI		D1238	g / 10min	20	15	MI		D1238	g / 10min	4	12
Impact S	trength at 23℃	D256	kg·cm/cm	NB	7.0	Impact S	trength at 23℃	D256	kg·cm/cm	8.0	6.5
H.D.T	(18.6Kg/cm <sup>2</sup> )	D648	°C	£	78	H.D.T	(18.6Kg/cm <sup>2</sup> )	D648	°C	80	73
11.0.1	( 4.6Kg/cm <sup>2</sup> )	D648	°C	99	<u> 1</u> .	П.Б.1	( 4.6Kg/cm <sup>2</sup> )	D648	°C	-	-
V.S.T		D1525	°C	-	-	V.S.T		D1525	°C	-	-
Tensile S	Strength	D638	kg/cm <sup>2</sup>	170	260	Tensile Strength		D638	kg/cm <sup>2</sup>	340	300
Tensile E	Iongation	D638	%	300	30	Tensile E	Iongation	D638	%	50	40
Flexural	Strength	D790	kg/cm <sup>2</sup>	200	420	Flexural	Strength	D790	kg / cm <sup>2</sup>	550	500
Flexural I	Modulus	D790	kg/cm <sup>2</sup>	11,000	23,000	Flexural	Modulus	D790	kg/cm <sup>2</sup>	21,500	20,000
Flammab	Flammability (UL-94)			НВ	НВ	Flammat	pility (UL-94)			НВ	V-0
Characteristics						Characte	eristics				

### **XANADU ABS Series**

# SR/3002 XANADU ABS 3001/3004/3001SH

### XANADU ABS 3003/3003H/3003SR/3002

XANADU ABS series are very widely used material in many fields. It is made of Acrylonitrile, Butadiene, and Styrene and has several good characteristics such as high gloss, good impact and high modulus.















**XANADU ABS Series** 



### Application

MONITOR, TV HOUSING

Monitor Case, TV, VTR, Printer, Fax and other electronic parts requiring flame retardant property

AUTOMOTIVE PARTS

Automobile interiors, Lamp Housing, Heater, Cluster Housing

### Application

HOME APPLIANCE

Electric Home Appliances, General Merchandise, Tape Recorders, Audio,

Air-Conditioner, Toys

HELMET & OTHER

Helmets, Pipe & Fittings, Mixer, Camera, Typewriter, Cash Resisters, Vacuum Cleaners

SHEET APPLICATION

Suitcase, Architecture Sheet, Refrigerator Door

### Physical Property

### Physical Property

PROPE	RTIES	ASTM	UNIT		ABS	S Series		PROPE	RTIES	ASTM	UNIT		HIPS 2000 SERIES		
Grade Na	ame			ABS 3003	ABS 3003H	ABS 3003SR	ABS 3002	Grade Name				ABS 3001	ABS 3004	ABS 3001SH	
Density		D792		1.05	1.05	1.05	1.2	Density		D792		1.05	1.05	1.05	
MI		D1238	g / 10min	10	7	5	47	MI		D1238	g / 10min	35	12	6	
Impact Strength at 23 ℃		D256	kg·cm/cm	22	18	12	20	Impact S	trength at 23℃	D256	kg·cm/cm	21	42	40	
H.D.T	(18.6Kg/cm <sup>2</sup> )	D648	°C	95	104	108	78	H.D.T	(18.6Kg/cm <sup>2</sup> )	D648	°C	90	90	91	
11.0.1	( 4.6Kg/cm <sup>2</sup> )	D648	℃	-	-	-	-		( 4.6Kg/cm <sup>2</sup> )	D648	°C	-	-	_	
V.S.T		D1525	°C	110	125	130	87	V.S.T		D1525	°C	97	98	105	
Tensile S	trength	D638	kg/cm <sup>2</sup>	420	460	480	430	Tensile Strength		D638	kg/cm <sup>2</sup>	470	400	460	
Tensile E	longation	D638	%	30	28	20	20	Tensile E	longation	D638	%	25	50	30	
Flexural	Strength	D790	kg/cm <sup>2</sup>	700	740	800	730	Flexural	Strength	D790	kg / cm <sup>2</sup>	720	570	750	
Flexural I	Modulus	D790	kg / cm <sup>2</sup>	20,000	23,000	25,000	24,000	Flexural	Modulus	D790	kg / cm <sup>2</sup>	22,000	17,000	25,000	
Flammab	pility (UL-94)			НВ	НВ	НВ	V-0	Flammat	pility (UL-94)			НВ	НВ	НВ	
Characteristics				Middle Heat Resistance	High Heat Resistance	Supper High Heat Resistance	Frame Retardant	Characte	ristics			General Purpose	High Impact	Extrusion	

### **XANADU ABS Series**

XANADU ABS/GF series are Glass Fiber reinforced ABS and it has excellent dimensional stability and high modulus.



XANADU ABS/GF 3201/3301







### **XANADU PC Series**

### XANADU PC 5001/5002

XANADU PC series are one of the most widely used engineering plastic in many application. It has excellent impact resistance, heat resistance and transparency.









### **Application**

**AUTOMOTIVE PARTS** 

Main Core(Instrument Panel), Meter Box, Head Lamp Housing, Back Mirror Cover

ELECTRICAL APPLIANCE

Fax Frame, Tape Reel, Pan Cake Hub, Speaker Box, Cooling Fan, Washer Pullery

INDUSTRIAL APPLICATION

Fishing Reel, Bobbin, Camera Frame

### **Application**

**AUTOMOTIVE PARTS** 

Head Lamp Lens, Lamp Housing

**ELECTRICAL APPLIANCE** 

Monitor Housing, Notebook Housing, Fax Frame, Cellular Phone Case, CD-ROM Driver Tray and Main Frame, Switch Battery Case, TFT-LCD BLF

Electrical Tool Housing, Distributing Board Box, Power Tool Component, Water Meter Housing

**INDUSTRIAL APPLICATION** 

### Physical Property

### Physical Property

PROPE	RTIES	ASTM	UNIT	ABS/GF 20%	ABS/GF 30%	PROPE	RTIES	ASTM	UNIT	PC	PC (FR)
Grade Na	ame			ABS/GF 3001	ABS/GF 3004	Grade N	ame			PC 5001	PC 5002
Density		D792		1.05	1.05	Density		D792		1.2	1.25
MI		D1238	g / 10min	35	12	MI		D1238	g / 10min	15	25
Impact Strength at 23°C		D256	kg·cm/cm	21	42	Impact S	trength at 23 ℃	D256	kg·cm/cm	60	50
H.D.T	(18.6Kg/cm <sup>2</sup> )	D648	°C	90	90	H.D.T	(18.6Kg/cm <sup>2</sup> )	D648	°C	135	130
11.0.1	( 4.6Kg/cm <sup>2</sup> )	D648	°C	<u>-</u>	-	П.Б.1	( 4.6Kg/cm <sup>2</sup> )	D648	°C	-	-
V.S.T		D1525	°C	97	98	V.S.T	V.S.T		°C	-	-
Tensile S	trength	D638	kg / cm <sup>2</sup>	470	400	Tensile Strength		D638	kg / cm <sup>2</sup>	620	600
Tensile E	longation	D638	%	25	50	Tensile E	Elongation	D638	%	100	100
Flexural	Strength	D790	kg / cm <sup>2</sup>	720	570	Flexural	Strength	D790	kg / cm <sup>2</sup>	1,000	950
Flexural I	Modulus	D790	kg / cm <sup>2</sup>	22,000	17,000	Flexural	Modulus	D790	kg / cm <sup>2</sup>	25,000	24,500
Flammab	oility (UL-94)			НВ	НВ	Flammak	pility (UL-94)			V-2	V-0
Characteristics				General Purpose	High Impact	Characte	eristics			High Impact	Flame Retardant

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### **XANADU PC Series**

XANADU PC/GF 5157/5207/5157FR series are Glass Fiber reinforced PC material. Based on Glass Fiber content, properties sush as HDT, flexural modulus can be adjusted to meet customer's request



XANADU PC/GF 5157/5207/5157FR







## Application

**AUTOMOTIVE PARTS** 

Lamp Housing, Filter Case, Fuel Case Cap

ELECTRICAL APPLIANCE

Fax Frame, Relay Case, Water Meter, Electric Tool Housing, Gears TFT-LCD Back Light Frame

INDUSTRIAL APPLICATION

Bobbin, Compressor Housing, Business Machine Frame, Connector

### XANADU PC/ABS Series

### XANADU PC/ABS ALLOY 6004/6002/6002NH

XANADU 6000 series are PC/ABS alloy material. Several kinds of grades are available such as high heat, high impact, high flow grade.











### Application

AUTOMOTIVE PARTS

Instrument Panel, Consol Box, Glove Box Cover, Wheel Cover & Cap, Back Mirror Housing

ELECTRICAL APPLIANCE

Monitor Housing, Notebook Housing, Fax Frame, Cellular Phone Case, CD-ROM Driver Tray and Main Frame, Switch

INDUSTRIAL APPLICATION

Helmet, Terminal Box, Electrical Tool Housing, Distributing Board Box, Power Tool Component, Water Meter Housing

### Physical Property

# Physical Property

PROPE	RTIES	ASTM	UNIT	PC/GF 15%	PC/GF 20%	PC/GF FR	PROPE	RTIES	ASTM	UNIT	PC	C/ABS ALLOY Serie	es
Grade Na	ame			PC/GF 5157	PC/GF 5207	PC/GF 5157FR	Grade N	ame			PC/ABS 6004	PC/ABS 6002NH	PC/ABS 6002
Density		D792		1.3	1.35	1.44	Density		D792		1.13	1.13	1.13
MI		D1238	g / 10min	-	-	-	MI		D1238	g / 10min	6	20	16
Impact S	trength at 23℃	D256	kg·cm/cm	10	11	12	Impact S	trength at 23°C	D256	kg·cm/cm	60	45	45
H.D.T	(18.6Kg/cm <sup>2</sup> )	D648	°C	143	147	148	H.D.T	(18.6Kg/cm <sup>2</sup> )	D648	°C	110	90	90
П.Б. 1	( 4.6Kg/cm <sup>2</sup> )	D648	°C	-	-	-		( 4.6Kg/cm <sup>2</sup> )	D648	°C	120	105	105
V.S.T		D1525	°C		-	-	V.S.T		D1525	°C	-	-	-
Tensile S	trength	D638	kg / cm <sup>2</sup>	820	1,150	1,500	Tensile Strength		D638	kg/cm <sup>2</sup>	538	510	520
Tensile E	longation	D638	%	5	6	4	Tensile E	Elongation	D638	%	90	85	85
Flexural	Strength	D790	kg / cm <sup>2</sup>	1,350	1,750	1,800	Flexural	Strength	D790	kg / cm <sup>2</sup>	800	820	830
Flexural I	Modulus	D790	kg / cm <sup>2</sup>	45,000	59,000	75,000	Flexural	Modulus	D790	kg / cm <sup>2</sup>	22,000	23,000	23,500
Flammab	pility (UL-94)			V-0	V-2	V-2	Flammat	pility (UL-94)			НВ	V-0	V-0
Characteristics							Characte	eristics			High Impact	non-Halogen	Brominated-FR

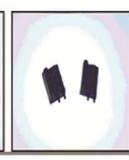
### **XANADU Nylon Series**

### XANADU Nylon/GF 7207/7307

XANADU 7207/7307 series are Glass Fiber reinforced Nylon grades. it has excellent electrical characteristics, high heat stability and dimensional stability as well.









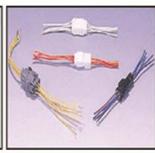


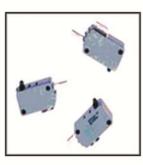
### **XANADU PBT Series**

### XANADU PBT/GF 8207/8307

XANADU PBT/GF 8207/8307 series are Glass Fiber reinforced PBT material. it has excellent electrical characteristics and widely used for electrical and industrial use such as Lamp Socket, Bobbin, Connectors.











### **Application**

**AUTOMOTIVE PARTS** 

Mirror Housing, Assembly, Fuel filter

ELECTRICAL APPLIANCE

Connector, Bobbin, Clip, Fix Ring, Tool Housing, Fastener

INDUSTRIAL APPLICATION

Chair Case, Fishing Reel, Window Flame Roller, Cable Tie

### Application

**AUTOMOTIVE PARTS** 

Frame Garnish, Door Handle, Connector, Control Device, Vent

**ELECTRICAL APPLIANCE** 

Lamp Socket, Bobbin, Condenser, Switch Connector, Air-Conditioner Frame, Pipe Holder

**INDUSTRIAL APPLICATION** 

Gear, Bracket, Pump Housing, Cable Connector

### Physical Property

### Physical Property

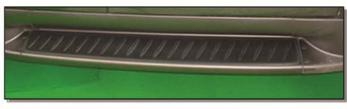
PROPE	RTIES	ASTM	UNIT	NYLON/GF 20%	NYLON/GF 30%	PROPE	PROPERTIES		UNIT	PBT/GF 20%	PBT/GF 30%
Grade Na	ame			Nylon/GF 7207	Nylon/GF 7307	Grade N	ame			PBT/GF 8207	PBT/GF 8307
Density		D792		1.28	1.36	Density	Density			1.46	1.52
MI		D1238	g / 10min	-	=	MI		D1238	g / 10min	17	-
Impact Strength at 23℃		D256	kg·cm/cm	7.5	12	Impact S	trength at 23℃	D256	kg·cm/cm	6.5	7.5
H.D.T	(18.6Kg/cm <sup>2</sup> )	D648	°C	205	245	H.D.T	(18.6Kg/cm <sup>2</sup> )	D648	°C	205	210
11.0.1	( 4.6Kg/cm <sup>2</sup> )	D648	°C	-	-	П.Б.1	( 4.6Kg/cm <sup>2</sup> )	D648	°C	210	215
V.S.T		D1525	°C	-	-	V.S.T		D1525	°C	-	-
Tensile S	Strength	D638	kg/cm <sup>2</sup>	1,450	1,450	Tensile S	Tensile Strength		kg / cm <sup>2</sup>	1,100	1,200
Tensile E	longation	D638	%	3.0	3.0	Tensile E	longation	D638	%	4.0	3.0
Flexural	Strength	D790	kg / cm <sup>2</sup>	2,200	2,800	Flexural	Strength	D790	kg / cm <sup>2</sup>	1,650	1,800
Flexural	Modulus	D790	kg / cm <sup>2</sup>	60,000	93,000	Flexural	Modulus	D790	kg/cm <sup>2</sup>	60,000	78,000
Flammak	Flammability (UL-94)			НВ	НВ	Flammak	pility (UL-94)			НВ	НВ
Characteristics						Characte	eristics				

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### **XANADU ALLOY Series**

### XANADU PC/PBT & PC/PBT/ABS Alloy 9001/9004

XANADU 9001/9004 series are PC/PBT and PC/PBT/ABS alloy material. It has very high impact resistance and easy-painting characteristics.









### **Application**

PC/PBT Alloy

**AUTOMOTIVE** 

Bumper Facia, Bumper Back Beam, Outdoor Handle, Door Frame Garnish, Side Step, Air-Spoiler

**ELECTRICAL** 

Relay, Lamp Socket, Timer Case

PC/PBT/ABS Alloy

**INDUSTRIAL & OTHER** 

Food Service Applications(BOWL), Communication Applications, Lawn and Garden Equipment

### **XANADU ALLOY Series**

### **XANADU ALLOY/GF 9207/9307**

XANADU 9007 series are Glass Fiber reinforced Polymer alloy material. It has chemical resistance and mechanical strength.







PBT/ABS/GF 30%

### Application

**AUTOMOTIVE PART** 

Roof Molding, Lamp Connector, Cowl Vent Grille, Speaker Frame, Glove Box Housing

UNIT

**ELECTRICAL APPLICATION** 

Compressor Terminal Board, Impeller, Electric Tool Housing, Key Top

PBT/ABS/GF 20%

### Physical Property

### Physical Property **PROPERTIES** ASTM PC/PBT/ABS UNIT PC/PBT **PROPERTIES ASTM**

		342.344						56.44		
Grade Name			PC/PBT 9004	PC/PBT/ABS 9001	Grade N	ame			PBT/ABS/GF 9207	PBT/ABS/GF 9307
Density	D792		1.22	1.3	Density		D792		1.35	1.40
MI	D1238	g / 10min	-	-	MI		D1238	g / 10min	-	-
Impact Strength at 23 ℃	D256	kg·cm/cm	NB	70	Impact S	trength at 23℃	D256	kg·cm/cm	8.5	9.0
(18.6Kg/cm <sup>2</sup> )	D648	°C	95	103	H.D.T	(18.6Kg/cm <sup>2</sup> )	D648	°C	160	170
( 4.6Kg/cm <sup>2</sup> )	D648	°C	110	115	11.0.1	( 4.6Kg/cm <sup>2</sup> )	D648	°C	200	215
V.S.T	D1525	°C		-	V.S.T		D1525	°C	-	-
Tensile Strength	D638	kg / cm <sup>2</sup>	480	520	Tensile Strength		D638	kg/cm <sup>2</sup>	950	1,000
Tensile Elongation	D638	%	> 100	120	Tensile E	longation	D638	%	4.0	3.5
Flexural Strength	D790	kg / cm <sup>2</sup>	750	850	Flexural	Strength	D790	kg/cm <sup>2</sup>	1,350	1,400
Flexural Modulus	D790	kg / cm <sup>2</sup>	20,000	22,000	Flexural	Modulus	D790	kg / cm <sup>2</sup>	50,000	75,000
Flammability (UL-94)			НВ	НВ	Flammak	pility (UL-94)			НВ	НВ
Characteristics			High Impact	High Impact	Characte	eristics				

**DOWON INDUSTRY DOWON INDUSTRY**