





華通材料股份有限公司 HYLOLOGY PLASTIC CO.,LTD



[Product list]

PC Composite materials PP Composite materials PBT/PC Composite materials ABS/PC Composite materials PA6 Composite materials PA66 Composite materials Conductive \ Antistatic Composite materials Abrasion \ Lubricity Composite materials Green halogen free flame retardant Composite materials



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HYLOLOGY PLASTIC CO., LTD.

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Before processing, dry the materials at $100 \circ C$ and 2 to 3 hours to remove moisture to make sure that the surface of the plastic is dry, in order to produce the excellent products. In the different product design, it would consider the effects of the strength, orientation, shrinkage and warpage .

The characteristics of the PP composite materials as follow.

- 1. Low gravity, low moisture absorption.
- 2. Forming easily, price is low and the color range is wide.
- 3. Excellent hydrolysis resistance and hot water resistance.
- 4. High toughness and high rigidity mechanical strength balanced.
- 5. Excellent electrical properties.
- 6. Excellent weather resistance and chemical resistance.
- 7. Meets UL 94 V-0 flame resistant specifications.

Application: insulating materials, electronic products, home appliances, the shell of motor pump, office furniture, medical equipment, high-temperature tool holder, high-tough bumper, instrument panel garnish, motorcycle components and so on.

| PP (Polypropylene) | 聚丙烯複合材料物性表 |
|--------------------|------------|
|--------------------|------------|

| | 材料物 Propertie | | | HIGH STI | 高剛耐熱 FF HIGH HEAT | | D GRADE | | 皮纖強化級 RE REINFORC | ED GRADE | | | | |
|------------------------------|------------------|-----------------|------------|----------------|----------------------|----------------|----------------|----------------|----------------------|----------------|-----|-----|-----|-----|
| 物理特性 Properties | 單位 | ŵz. | 型號 ASTM | YT-7620R 黑色 | YT-7620R-02 本色 | YT-7630R 本色 | YT-7640R 本色 | YT-7710R 黑色 | YT-7720R 黑色 | YT-7730R 黑色 | | | | |
| 抗張強度 Tensile | kg/ | cm ² | D-638 | 265 | 260 | 248 | 330 | 415 | 498 | 690 | | | | |
| 仲長率 Elongatio | % | . | 2.000 | 14 | 10 | 15 | 10 | 6 | 5 | 4.5 | | | | |
| 抗折強度 Flexural Strength | kg/an* | | kg/att | | kg/ant | | D-790 | 385 | 380 | 380 | 532 | 516 | 720 | 935 |
| 抗折模數 Flexural Modulus | kg/ | cm² | 2.130 | 20625 | 19000 | 25240 | 42300 | 21880 | 33200 | 51788 | | | | |
| 街撃強度 Izod Impact | kg-cm/cm | RT | D-256 | 4.5 | 13 | 5.2 | 5 | 9 | 13 | 14 | | | | |
| Strength (Notched: 1/8*) | kg-citycin | -30°C | D-230 | - | - | | - | | 58 1 | - | | | | |
| 熱變形溫度 Heat | °C — | 4.6 | D-648 | 125 | 125 | 138 | 150 | 155 | 160 | 160 | | | | |
| Distortion Temperature | | kg/ant | | | 1000000 | | 1000110 | | | | | | | |
| 硬度 | Shor | e D | D-2240 | - | | | - | 69 | 72 | 73 | | | | |
| Hardness | Rockw | vell R | D-785 | 87 | 100 | 101 | 103 | 93 | 100 | 105 | | | | |
| 縮水率 Mold Shrinkage | * | | D-955 | 1.2 | 1.2 | 1.1 | 0.9 | 0.7 | 0.5 | 0.4 | | | | |
| 比重 Specific Gravity | g/c | a' | D-792 | 1.04 | 1.048 | 1.13 | 1.25 | 0.98 | 1.04 | 1.12 | | | | |
| 友份含量 Filler Content | * | | D-2548 | 19.8 | 20.2 | 29.8 | 38.5 | 10 | 19.8 | 30 | | | | |
| 耐燃性 Flammability | 1.6n 3.2n | | UL-94 | 120 | | 21 <u>-</u> 2 | ~ | - | - | - | | | | |

| | 射 出 成 型 條 件 Injection Condition | |
|---------------------------|------------------------------------|-----------------|
| 材料乾燥温度 Drying Temp | 90~100°C × 3 Hrs | 80~100℃ × 2 Hrs |
| 材料成型溫度 Cylinder Temp | 190°C~230°C | 200°C~240°C |
| 射出棋具溫度 Mold Temp | 30°C~60°C | 60°C~100°C |
| 射出成型壓力 Injection Pressure | 300~1100kg/cm | 400~1200kg/cm |

*本公司尚有許多規格。以上數據僅供選擇用品之参考。 * The company there are many specifications. The above data is only for select items of reference.

| 3 | 材料物 Propertie | | | | | 耐衡改性 TMODIFIED | | | | |
|------------------------------|------------------|--------|--|----------------|-------------------|-------------------|------------------|------------------|-------|-------|
| 物理特性 Properties | 單 | 位 | 型號 ASTM | YT-7105R 黑色 | YT-7620R-09 黑色 | HT-35AP 黑色 | HT-1311-OP 黑色 | HT-2315-OP 黑色 | | |
| 抗張強度 Tensile | kg/am² | | D-638 | 257 | 248 | 155 | 210 | 205 | | |
| 伸長率 Elongatio | | | D-638 | 215 | >400 | >400 | >110 | 38 | | |
| 抗折強度 Flexural Strength | kg/an= | | exural kg/cm² rength D-7 好棋數 exural kg/cm² | | D-790 | 278 | 289 | 125 | 275 | 270 |
| 抗折模數 Flexural Modulus | | | | | 2730 | 11500 | 12520 | 4260 | 15120 | 16170 |
| 街撃強度 Izod Impact | kg-cm/cm | RT | D-256 | 58 | 28 | NB | NB | NB | | |
| Strength (Notched: 1/8*) | - | -30℃ | | 9 | 5 | NB | 5.3 | 5 | | |
| 熱變形溫度 Heat Distortion | °C | 4.6 | D-648 | 107 | 110 | 60 | 117 | 122 | | |
| Temperature | | kg/cm² | | | 1.122 | | | | | |
| 硬度 | Shor | e D | D-2240 | 67 | 70 | 59 | 66 | 65 | | |
| Hardness | Rockw | ell R | D-785 | - | 76.8 | - | 65.5 | 68.5 | | |
| 縮水率 Mold Shrinkage | % | | D-955 | 1.6 | 1.4 | 1.3 | 1.05 | 0.8 | | |
| 比重 Specific Gravity | g/an | | D-792 | 0.93 | 1.049 | 0.93 | 0.97 | 1.052 | | |
| 灰份含量 Filler Content | % | | D-2548 | -2 | 20 | - | 12.6 | 23 | | |
| 耐燃性 Flammability | 1.6n 3.2n | | UL-94 | - | - | - | | | | |

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| | 十 出 成 型 條 件 njection Condition | |
|---------------------------|-----------------------------------|--|
| 材料乾燥温度 Drying Temp | 70~90℃ × 2 Hrs | |
| 材料成型溫度 Cylinder Temp | 170°C~230°C | |
| 射出模具溫度 Mold Temp | 15°C~60°C | |
| 射出成型壓力 Injection Pressure | 400~1100kg/cm | |

*本公司尚有許多規格。以上數據僅供選擇用品之參考。 * The company there are many specifications. The above data is only for select items of reference. *NB = NO BRAKE *NB = 不斷裂

PA66 (**Polyamides 66, Nylons 66**), melting point is 260~265°C which has high temperature resistance, hydrolysis resistance, oil and gas resistance. Due to these properties, PA66 become to the best material for car and motorcycle parts. The main application in under the hood parts, because of the high temperature resistant, resistant to oil and hydrolysis. Through PA66 compound with the glass fiber, it would be good mechanical strength properties.

The characteristics of the PA66 composite materials as follow.

- 1. High rigidity, high impact strength. (even in the low temperature)
- 2. Excellent mechanical strength.
- 3. High heat distortion temperature.
- 4. Excellent chemical resistance.
- 5. Resistance of hydrolysis resistance, oil and gas.
- 6. Low surface friction and abrasion resistance.
- 7. Compared with the weight of metal materials, the weight of product could reduce by more than 50%, and the cost could reduce by 30%.

Application: wheel disk, bearing, shell of the motor, car parts, gears, fishing gear, buckle, motorcycle parts, goggles, sole, cooling fan, intake grille, radiator cover, auxiliary radiator, oil filter, heat cover of engine, cylinder head, intake manifold, AEG and so on.

| | 材料物 Propertie | | | ни | | 对街改 T MODIF | 性級 TED GRAI | DE | GL | 玻 ASS FIBRE | ★ 強化# REINFOI | | ADE | | | | |
|---------------------------------------|------------------|--------|------------|---------------|-----------------------------------|----------------|----------------|--------------|--------------|----------------|------------------|--------------|--------------|------|------|------|------|
| 物理特性 Properties | 單 | ŝīz. | 型號 ASTM | P-4108A 本色 | P-4110 本色 | P-4115 本色 | SP-4115A 本色 | P-4120 本色 | G-1110 黒色 | G-1133A 黑色 | G-4135 本色 | G-1140 黑色 | G-1155 黑色 | | | | |
| 抗張強度 Tensile | | | D-638 | 670 | 550 | 480 | 570 | 450 | 1218 | 1825 | 1850 | 2075 | 2116 | | | | |
| 伸長率 Elongatio | % | | 0-638 | 25 | 20 | 80 | 60 | 90 | 4 | 3.2 | 6 | 3 | 2.5 | | | | |
| 抗折強度 Flexural Strength | kg/a# | | kg/a# | | 析強度 lexural kg/cm ² | | D-790 | 1012 | 785 | 600 | 873 | 650 | 1430 | 2100 | 2735 | 2308 | 3135 |
| 抗折模數 Flexural Modulus | kg/ | 'cm² | 5-750 | 23805 | 19990 | 16000 | 17800 | 16500 | 40178 | 77898 | 86700 | 86890 | 124300 | | | | |
| 街撃強度 Izod | kg-cm/cm | RT | D-256 | 17 | 65 | 110 | 120 | 120 | 10 | 14 | 20 | 11 | 17 | | | | |
| Impact Strength (Notched: 1/8") | ng chroni | -30°C | | 8 | 15 | 20 | 24 | 26 | - | | - | E. | - | | | | |
| 熱變形溫度 Heat Distortion | °C | 18.6 | D-648 | 75 | 60 | 55 | 52 | 50 | 185 | 246 | 248 | 250 | 260 | | | | |
| Temperature | | kg/ant | | | | | | | | | | | | | | | |
| 硬度 | Shor | e D | D-2240 | 80 | 78 | 75 | 73 | 74 | - | | - | - | - | | | | |
| Hardness | Rocky | vell R | D-785 | 110 | 110 | 106 | 102 | 102 | 117 | 120 | 120 | 120 | 120 | | | | |
| 缩水率 Mold Shrinkage | * | | D-955 | 1.8 | 1.8 | 1.8 | 2.0 | 2.4 | 0.8 | 0.5 | 0.5 | 0.4 | 0.3 | | | | |
| 比重 Specific Gravity | g/0 | * | D-792 | 1.06 | 1.06 | 1.075 | 1.09 | 1.07 | 1.23 | 1.36 | 1.42 | 1.43 | 1.52 | | | | |
| 友份含量 Filler Content | * | 5 | D-2548 | - | 80 | - | - | - | 10 | 33 | 35 | 40 | 55 | | | | |
| 耐燃性 Flammability | 1.6r 3.2r | | UL-94 | | <u>1</u> 20 | - | <u></u> | | | нв | нв | нв | нв | | | | |

| | 射 出 成 型 條 件 Injection Condition | |
|---------------------------|------------------------------------|------------------|
| 材料乾燥温度 Drying Temp | 100~110°C × 3 Hrs | 110~130℃ × 4 Hrs |
| 材料成型温度 Cylinder Temp | 250°C~280°C | 270°C~300°C |
| 射出模具温度 Mold Temp | 60°C~80°C | 90°C~120°C |
| 射出成型壓力 Injection Pressure | 600~1300kg/cm | 800~1500kg/cm |

*本公司尚有許多規格。以上數據僅供選擇用品之參考。 * The company there are many specifications. The above data is only for s∈

| (i | 材料物 Propertie | | E | | S溫耐衡改化 IMPACT MOD | 防火級 FLAME RETARDANT GRADE | | | | |
|--|-------------------------------------|--------|---------|---------------|----------------------|------------------------------|-------------|-------------|------|------|
| 物理特性 Properties | 單位 | | ASTM 型號 | PG-4110 本色 | PG-4115 本色 | PG-4130 本色 | I1046 本色 | I1016 黑色 | | |
| 抗張強度 Tensile | kg/cm² % | | | | D-638 | 862 | 1020 | 1250 | 1440 | 1438 |
| 伸長率 Elongatio | | | D-636 | 10 | 8 | 4 | 2 | 2 | | |
| 抗折強度 Flexural Strength | 亢折強度 Flexural kg/cm ² | | D-790 | 1190 | 1260 | 1750 | 2130 | 2140 | | |
| 抗折模數 Flexural Modulus | kg/ | cm² | D-790 | 24020 | 38500 | 60000 | 83900 | 83860 | | |
| 街撃強度 Izod Impact Strength (Notched:1/8*) | kg-cm/cm | RT | D-256 | 14 | 16 | 20 | 14 | 14 | | |
| | | -30°C | D-236 | 8 | 10 | 11 | - | - | | |
| 熱變形溫度 Heat Distortion | °C | 18.6 | D-648 | 205 | 208 | 215 | 245 | 245 | | |
| Temperature | | kg/cm² | | | | | | | | |
| 硬度 Hardness | Rockw | ell R | D-785 | 116 | 117 | 118 | 118 | 118 | | |
| 縮水率 Mold Shrinkage | % | | D-955 | 0.6 | 0.6 | 0.5 | 0.2 | 0.2 | | |
| 比重 Specific Gravity | g/cm³ | | D-792 | 1.13 | 1.19 | 1.3 | 1.5 | 1.51 | | |
| 友份含量 Filler Content | % | | D-2548 | 10 | 15 | 30 | 30 | 30 | | |
| 耐燃性 Flammability | 1.6n 3.2n | | UL-94 | - | - | - | V- 0 | V- 0 | | |

| | 射 出 成 型 條 件 Injection Condition | | | | |
|---------------------------|------------------------------------|-------------|--|--|--|
| 材料乾燥溫度 Drying Temp | 100~130℃ × 3 Hrs 110~130℃ × 4 | | | | |
| 材料成型溫度 Cylinder Temp | 270°C~300°C | 280°C~300°C | | | |
| 射出模具溫度 Mold Temp | 80℃~100℃ | | | | |
| 射出成型壓力 Injection Pressure | 800~1300 | kg/cm² | | | |

*本公司尚有許多規格。以上數據僅供選擇用品之多考。 * The company there are many specifications. The above data is only for select items of reference.

PA6 (**Polyamides 6, Nylons 6**), melting point is 220°C, decomposition temperature is greater than 310°C, density is 1.14, water absorption rate is 1.8%(24 hours in the water at 23°C) which has excellent abrasion resistance, self-lubricity, high mechanical strength, heat resistance, electrical insulation, good property in low temperature, excellent chemical resistance especially oil resistance.

The characteristics of the PA6 composite materials as follow.

- 1. Excellent tensile strength at yield and rigidity.
- 2. Excellent abrasion resistance.
- 3. High heat distortion temperature.
- 4. Excellent chemical and solvent resistance.
- 5. Resistance of hydrolysis resistance, oil and gas.
- 6. Excellent impact strength.
- 7. Compared with the weight of metal materials, the weight of product could reduce by more than 50%, and the cost could reduce by 30%.

Application: wheel disk, bearing, shell of the motor, car parts, gears, fishing gear, buckle, motorcycle parts, goggles, sole, cooling fan, intake grille, radiator cover, auxiliary radiator, oil filter, heat cover of engine, cylinder head, intake manifold, AEG and so on.

| 1 | 材料物 Propertie | | e. | н | 低温 GH IMPAC | 耐街改付 T MODIF | | DE | GLA | 玻 SS FIBRE | 纖強化# REINFO | | ADE | | |
|--------------------------------------|------------------|-----------------|----------------|--------------|----------------|-----------------|--------------|---------------|--------------|---------------|----------------|---------------|--------------|------|------|
| 物理特性 Properties | 單位 | ۲Ż | 型號 ASTM | P-4010 本色 | P-4015A 本色 | P-4020 本色 | P-4035 本色 | P-1037A 黑色 | G-4015 本色 | G-4030 本色 | G-4035 本色 | G-4040 本色 | G-4050 本色 | | |
| 抗張強度 Tensile | kg/ | cm ² | D-638 | 578 | 490 | 540 | 405 | 400 | 1220 | 1450 | 1650 | 1585 | 2320 | | |
| 仲長率 Elongatio | * | | D-038 | 70 | 140 | 98 | 280 | >300 | 5 | 6 | 5 | 5 | 3 | | |
| 抗折強度 Flexural Strength | kg/an* | | 度 al kg/cm² | | D-790 | 790 | 750 | 780 | 495 | 455 | 1820 | 2300 | 2450 | 2785 | 3250 |
| 抗折模數 Flexural Modulus | kg/ | cm ⁴ | 5-730 | 20580 | 16500 | 19100 | 10500 | 9516 | 44620 | 798000 | 81700 | 89000 | 124000 | | |
| 街撃強度 Izod | kg-cm/cm | RT | D-256 | 60 | 106 | 105 | NB | NB | 12 | <u>ा7</u> | 18 | 27 | 25 | | |
| Impact Strength (Notched:1/8*) | | -30°C | | 15 | 18 | 20 | NB | NB | - | | | 20 — 2 | | | |
| 熱變形溫度 Heat Distortion | ů | 18.6 | D-648 | 55 | 55 | 53 | 50 | 50 | 205 | 210 | 210 | 215 | 248 | | |
| Temperature | | kg/ant | | | | | | | | | 1000000 | | 100000 | | |
| 硬度 | Shor | e D | D-2240 | 74 | 74 | 70 | 67 | 66 | <u> </u> | E. | 1000 | 85 | 86 | | |
| Hardness | Rockw | vell R | D-785 | 109 | 109 | 107 | 95 | 95 | 117 | 119 | 119 | 119 | 120 | | |
| 缩水率 Mold Shrinkage | * | • | D-955 | 1.6 | 1.6 | 1.8 | 2.0 | 2.2 | 0.8 | 0.5 | 0.4 | 0.3 | 0.2 | | |
| 比重 Specific Gravity | g/c | a' | D-792 | 1.08 | 1.07 | 1.06 | 1.04 | 1.02 | 1.22 | 1.36 | 1.39 | 1.43 | 1.56 | | |
| 友份含量 Filler Content | * | | D-2548 | - | - | - | - | | 15 | 30 | 35 | 40 | 50 | | |
| 耐燃性 Flammability | 1.6n 3.2n | | UL-94 | | - | | | | - | нв | нв | нв | нв | | |

| 射出成型條件 Injection Condition | | | | | | | |
|-------------------------------|-------------------|------------------|--|--|--|--|--|
| 材料乾燥温度 Drying Temp | 100~120°C × 3 Hrs | 110~130℃ × 4 Hrs | | | | | |
| 材料成型温度 Cylinder Temp | 230°C~260°C | 250°C~280°C | | | | | |
| 射出模具温度 Mold Temp | 60℃~80℃ | 80°C~100°C | | | | | |
| 射出成型壓力 Injection Pressure | 600~1100kg/cm | 700~1300kg/cm | | | | | |

*本公司尚有許多規格。以上數據僅供還擇用品之参考。 * The company there are many specifications. The above data is only for select items of refere

*NB = NO BRAKE

| | 材料物 Propertie | | | | S温耐衡改 EIMPACT MOD | | 防火級 FLAME RETARDANT GRADE | | |
|---|------------------|-----------------|------------|---------------|----------------------|----------------|------------------------------|-------------|--|
| 物理特性 Properties | 單位 | 位 | 型號 ASTM | PG-4015 本色 | PG-4030 本色 | PG-1050A 本色 | N1046 本色 | N1016 黑色 | |
| 抗張強度 Tensile | kg/ | cm ^a | D-638 | 860 | 1200 | 1390 | 1170 | 1100 | |
| 伸長率 Elongatio | % | | D-638 | 5 | 4 | 7 | 3 | 3 | |
| 抗折強度 Flexural Strength | kg/cm² | | D-790 | 1170 | 1550 | 1950 | 1560 | 1520 | |
| 抗折模數 Flexural Modulus | kg/ | CIIII" | 5-730 | 37700 | 56000 | 74000 | 55500 | 55490 | |
| 街撃強度 Izod Impact ^k Strength (Notched:1/8*) | kg-cm/cm | | 25 | 20 | 18 | 30 | 25 | | |
| | | -30℃ | 5-250 | 18 | 15 | 8 | | | |
| 熱變形溫度 Heat Distortion | °C | 18.6 | D-648 | 190 | 200 | 215 | 235 | 235 | |
| Temperature | | kg/cm² | | | | | | | |
| 硬度 | Shor | e D | D-2240 | 77 | 80 | 82 | 83 | 83 | |
| Hardness | Rockw | ell R | D-785 | 114 | - <u></u> - | _ | 118 | 118 | |
| 縮水準 Mold Shrinkage | % | | D-955 | 0.5 | 0.4 | 0.3 | 0.2 | 0.2 | |
| 比重 Specific Gravity | g/cm* | | D-792 | 1.12 | 1.25 | 1.38 | 1.51 | 1.52 | |
| 友份含量 Filler Content | % | | D-2548 | 15 | 30 | 50 | 30 | 30 | |
| 耐燃性 Flammability | 1.6n 3.2n | | UL-94 | | | - | V- 0 | V- 0 | |

| | 射 出 成 型 條 件 Injection Condition | |
|---------------------------|------------------------------------|-------------------|
| 材料乾燥溫度 Drying Temp | 100~110°C × 3 Hrs | 110~120°C × 4 Hrs |
| 材料成型温度 Cylinder Temp | 240°C~280°C | 250℃~290℃ |
| 射出模具温度 Mold Temp | 70°C ~10 | 0°C |
| 射出成型壓力 Injection Pressure | 600~1100 | kg/cui |

*本公司尚有許多規格。以上數據僅供選擇用品之參考。 * The company there are many specifications. The above data is only for select items of reference.

PC (**Polycarbonate**), because of the high viscosity, it need to high-pressure and high-temperature to form. Due to the high hardness, it would be broken and mold damage easily. However, the properties of transparent, tough, stability in low temperature, weather resistance, light resistance, impact resistance, heat resistance, creep resistance and excellent mechanical property in any temperature.

The characteristics of the PC composite materials as follow.

- 1. Excellent mechanical property in temperature.
- 2. High rigidity and impact strength.
- 3. Excellent stability in low temperature.
- 4. Transparent and good creep resistance.
- 5. Excellent stability of the size.
- 6. Poor abrasion resistance and high viscosity is not easy to produce
- 7. Easy to hydrolyze, poor chemical, oil and gas resistance.

Application: switch, home appliance cover, rocket socket, electric appliance cover, electric parts, coffee pot, calculator parts, electrical parts, bumper, distribution board, camera, machine cover, helmet, goggles, safety lens, electrical tool parts, precision machinery parts, nut, gear, bearing and so on. PC (Polycarbonate) 聚碳酸酯複合材料物性表

| 材料物性表 Properties Data | | | 高剛耐衡合金級 HIGH STIFF HIGH IMPACT ALLOY GRADE | | | | 玻纖強化級 GLASS FIBRE REINFORCED GRADE | | | | | |
|------------------------------|-------------------------|-----------------|---|--------------------|--------------------|-----------------------|---------------------------------------|---------------------|---------------------|---------------------|------|------|
| 物理特性 Properties | 單 | 位之. | 型號 ASTM | YT-4030R PC/ABS | YT-4031R PC/ABS | YT-4030R-85 PC/ABS | YT-2200-15 PC/ABS | YT-2500-10 PC+GF | YT-2500-20 PC+GF | YT-2500-30 PC+GF | | |
| 抗張強度 Tensile | kg/ | cm ² | D-638 | 520 | 583 | 580 | 605 | 830 | 1170 | 1360 | | |
| 仲長率 Elongatio | * | 5 | | 23 | 28 | 88 | 95 | 5 | 4 | 4 | | |
| 抗折強度 Flexural Strength | kg/ant | | 10000 | | D-790 | 785 | 862 | 865 | 880 | 1235 | 1620 | 1830 |
| 抗折模數 Flexural Modulus | kg/ | 'cm² | | 22000 | 23150 | 24852 | 22300 | 36980 | 51712 | 71560 | | |
| 街撃強度 Izod | pact kg-cm/cm -30°C | 0.000 | D-256 | 55 | 70 | 45 | 65 | 8 | 12.5 | 15 | | |
| Strength (Notched: 1/8*) | | -30°C | | 7 | 11 | 16 | 60 | 6 | 9.5 | 11 | | |
| Heat °C | 4.6 | D-648 | 110 | 120 | 108 | 116 | 140 | 143 | 145 | | | |
| | | kg/m* | | | | | | | | | | |
| 硬度 | Shore D s Rockwell R | | D-2240 | - | - | - | 10 — 1 | - | - | | | |
| Hardness | | | D-785 | 104 | 108 | 114 | 116 | 121 | 122 | 122 | | |
| 缩水率 Mold Shrinkage | % | | D-955 | 0.7 | 0.6 | 0.6 | 0.5 | 0.3 | 0.25 | 0.2 | | |
| 比重 Specific Gravity | g/cm* | | D-792 | 1.13 | 1.15 | 1.13 | 1.18 | 1.25 | 1.32 | 1.41 | | |
| 友份含量 Filler Content | % | | D-2548 | = | | - | | 10 | 19.8 | 29.6 | | |
| 耐燃性 Flammability | 1.6mm 3.2mm | | UL-94 | - | - | - | - | - | - | - | | |

| | 射 出 成 型 條 件 Injection Condition | |
|---------------------------|------------------------------------|-------------------|
| 材料乾燥温度 Drying Temp | 90~110°C × 3 Hrs | 100~120°C × 2 Hrs |
| 材料成型温度 Cylinder Temp | 220°C~260°C | 250°C~300°C |
| 射出棋具溫度 Mold Temp | 60°C~80°C | 90°C~120°C |
| 射出成型壓力 Injection Pressure | 800~1300kg/cm | 1000~1600kg/cm |

*本公司尚方許多規格。以上數據僅供選擇用品之多考。 * The company there are many specifications. The above data is only for select items of ref

| 材料物性表 Properties Data | | | | 玻纖低溫耐衡改性級 GLASS FIBRE IMPACT MODIFIED GRADE | | | 防火級 FLAME RETARDANT GRADE | |
|--|----------------|--------------------|------------|--|----------------------|----------------------|------------------------------|-----------------|
| 物理特性 Properties | 單 | 位 | 型號 ASTM | YT-4500 PC/PBT | YT-4500-20 PC/PBT | YT-4500-30 PC/PBT | YT-2100-10 PC | F2000 PC/ABS |
| 抗張強度 Tensile | kg/ | Cim ² | D-638 | 510 | 880 | 930 | 800 | 645 |
| 伸長率 Elongatio | % | | D-030 | 115 | 3.5 | 2.8 | 3 | 82 |
| 抗折強度 Flexural Strength | kg/cm² | | D-790 | 850 | 1650 | 1680 | 1150 | 1020 |
| 抗折模數 Flexural Modulus | kg/ | CIIII [#] | 5-730 | 21200 | 55200 | 58100 | 35200 | 26220 |
| 街擊強度 Izod Impact k Strength (Notched:1/8") | kg-cm/cm | RT | D-256 | 52 | 18 | 26 | 10 | 50 |
| | kg-cnivem | -30℃ | | 7 | 5 | 8 | 8 1 | 10 |
| 熱變形溫度 Heat Distortion Temperature | °C | 18.6 | D-648 | 112 | 118 | 120 | 140 | 90 |
| | | kg/cm² | | | | | | |
| 硬度 | 硬度 Shore D | e D | D-2240 | | - | | | |
| Hardness | Rockwell R | | D-785 | 110 | 112 | 116 | 118 | 114 |
| 縮水準 Mold Shrinkage | % | | D-955 | 0.7 | 0.3 | 0.2 | 0.4 | 0.5 |
| 比重 Specific Gravity | g/cm² | | D-792 | 1.21 | 1.25 | 1.32 | 1.28 | 1.18 |
| 灰份含量 Filler Content | % | | D-2548 | -0 | 19.7 | 29.92 | 10 | |
| 耐燃性 Flammability | 1.6mm 3.2mm | | UL-94 | - 9 | - | | V- 0 | V- 0 |

| | 射 出 成 型 條 件 Injection Condition | |
|---------------------------|------------------------------------|-----------------|
| 材料乾燥溫度 Drying Temp | 90~110℃ × 3 Hrs | 80~100℃ × 4 Hrs |
| 材料成型溫度 Cylinder Temp | 240°C~280°C | 250°C~290°C |
| 射出模具温度 Mold Temp | 60°C~80 | rc |
| 射出成型壓力 Injection Pressure | 700~1200kg/cm | |

*本公司尚有許多規格。以上數據僅供選擇用品之多考。 * The company there are many specifications. The above data is only for select items of reference.

PC/ABS is that combine with Polycarbonate and Acrylonitrile Butadiene Styrene. It has the formability of ABS and mechanical strength and impact strength of PC which could resist temperature and ultraviolet rays(UV).

PC/ABS is a modified plastic that synthesized by compounding. These modified plastic would be better than PC and ABS which improve the impact resistance, heat resistance and hardness.

The characteristics of the PC/ABS composite materials as follow.

- 1. Excellent chemical stability and electrical properties.
- 2. Excellent mechanical properties.
- 3. Excellent combining with polymethyl methacrylate and could form double-color plastic.
- 4. High impact resistance, heat resistance, flam resistance friendly in environment and reinforced.
- 5. Excellent impact strength in low temperature.
- 6. Excellent stability at ultraviolet ray.
- 7. High heat distortion temperature (80~125°C).
- 8. Wide range of colors.
- 9. Excellent electroplating and chrome plating.
- 10. Low density(1.05-1.20).

Application: car intern parts, 3C products cover, business machine parts and cover, communication apparatus, lithium battery cover, home appliance, light equipment, helmet and so on. **PC/PBT** is that combine with Polycarbonate and polybutylene terephthalate. It has the impact resistance, tough and heat resistance of PC and chemical resistance of PBT. However, PBT damp easily which could improve by combined with PC. PC/PBT put in use the products that need impact resistance, chemical resistance and impact resistance in low temperature.

PC/PBT processing is unique because the flowing is low which do not suit to thin-wall design. Therefore, shrinkage of PC/PBT depends on the content of PBT.

The characteristics of the PC/PBT composite materials as follow.

- 1. High tough (even in the low temperature).
- 2. Excellent chemical resistance.
- 3. Do not be broken easily.
- 4. Excellent coating.
- 5. Low moisture absorption rate.
- 6. High heat resistance.

Application: bumper, car side mounlding, farm machinery head cover, truck bumper, tool machine cover, irrigation equipment, electronic light parts, sports equipment, helmet, wiring connector and so on.

Under the hood parts

| Air intake manifold | HYLOLOGYSTAR_G-1135A · PA66+35% glass-fiber reinforced, heat and aging resistance. |
|---------------------|--|
| | HYLOLOGYSTAR_G-1035A · PA6+35% glass-fiber reinforced, heat and aging resistance. |
| | HYLOLOGYSTAR_G-1130A-J · PA6+30% glass-fiber reinforced, heat, aging, hydrolysis resistance. |
| Engine front cover | HYLOLOGYSTAR_G-1130A · PA66+30% glass-fiber reinforced, heat and aging resistance. |
| | HYLOLOGYSTAR_M-1125 · PA66+25% mineral-fiber, heat, aging resistance and low warpage. |
| | REENI_GM-1030 · PA6+20% mineral /Glass-fiber, heat and aging resistance. |
| Fan shroud | REENI_G-1033 · PA6+33% glass-fiber reinforced, stable heat resistance. |
| | HYLOLOGY_YT-7720R [,] PP+20% glass-fiber reinforced, impact resistance, surface reinforced. |
| Brake fluid housing | |
| TOP | REENI_G-1130A-J · PA66+30% glass- fiber reinforced, stable heat and aging resistance and surface reinforced. |

Under the hood parts

Fans air



Cooling fan



Bumper



Water chamber



REENI_G-4140 · PA66+40% glass-fiber, High rigidity, aging resistance reinforced

HYLOLOGY_YT-7710R-01 · PP+10% glassfiber reinforced, high rigidity, impact resistance and surface reinforced.

REENI_G-1125 · PA66+25% glass-fiber, heat and aging resistance.

HYLOLOGY_YT-7730R · PP+30% glass-fibe reinforced, impact resistance and surfact reinforced.

REENI_GM-1040A-4 · PA6/66+40% glassfiber reinforced, impact resistance and surface reinforced.

HYLOLOGY_YT-7620R · PP+20% mineralfiber reinforced, scratch resistance reinforced.

REENI_G-1130A-J · PA66+30% glass-fiber, heat resistance, aging resistance, hydrolysis resistance, torsion resistance and surface reinforced

Bicycle

| Brake | REENI_G-4240 · PA66+40% glass-fiber, high flowing, rigidity and surface reinforced. |
|----------------|---|
| Seat | REENI_PG-1020 · PA6+20% glass-fiber, excellent impact resistance in low temperature |
| Sports sole | REENI_PG-4115A · PA66/filling,excellent impact resistance in low temperature |
| | E Station |
| | Snowboard |
| Bindings | PEENIL P. 41154 . PA66 impact |
| 200 | REENI_P-4115A · PA66 impact resistance in low temperature |
| Fixing element | 4 |
| No. | REENI_P-4110A · PA66 impact |



Snowshoes



REENI_P-4120A · PA66 impact resistance in low temperature

resistance in low temperature



Motorcycle

Rear armrest



Box



REENI_G-4030 · PA6+30% glass-fiber, high flowing and high gloss.

HYLOLOGY_YT-7720R · PP+20% glassfiber reinforced, impact resistance and surface reinforced

HYLOLOGY_YT-7720R · PP+10% glassfiber reinforced, impact resistance and surface reinforced.





REENI_G-1030 · PA6+30% glass-fiber, hear and aging resistance.

other products

Helmet



HYLOLOGY_YT-4031R · PC/ABS impact resistance in low temperature.

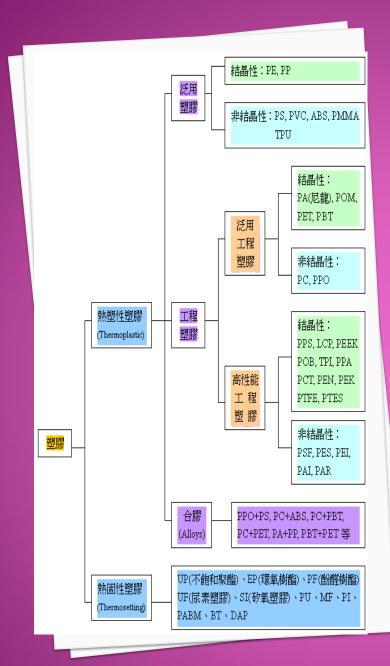
Goggles





REENI_P-4120A · PA66 high rigidity and impact resistance in low temperature

REENI_GM-1040A-4 · PA6/66+40% glass fiber reinforced, impact resistance, printability and surface reinforced.





華通材料股份有限公司 HYLOLOGY PLASTIC CO.,LTD

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本公司主要生產銷售產品概分;

 PP
 複合材料系列

 NYLON
 複合材料系列

 ABS
 複合材料系列

 PC
 複合材料系列

 PC/ABS
 合膠材料系列

 PC/PBT
 合膠材料系列

六大系列產品;也可配合客戶指定相關規格 之複合、補強、改質、防火等材料。