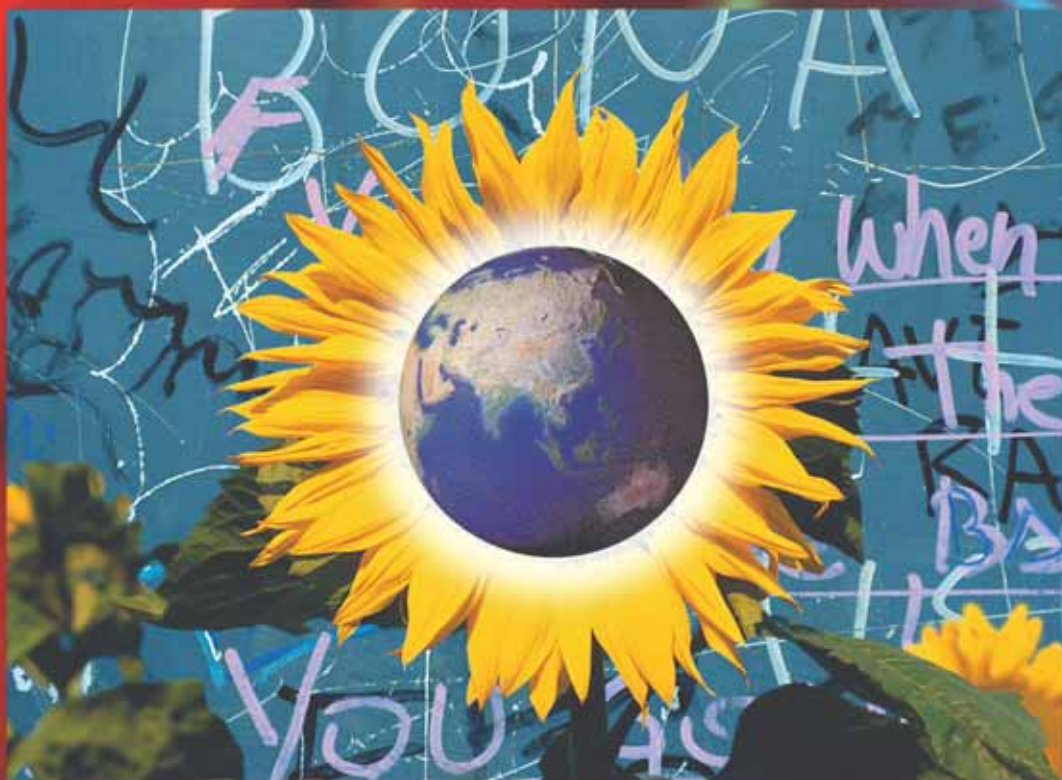


UNIQUE PP synthetic paper

UNIQUE PP Synthetic Paper

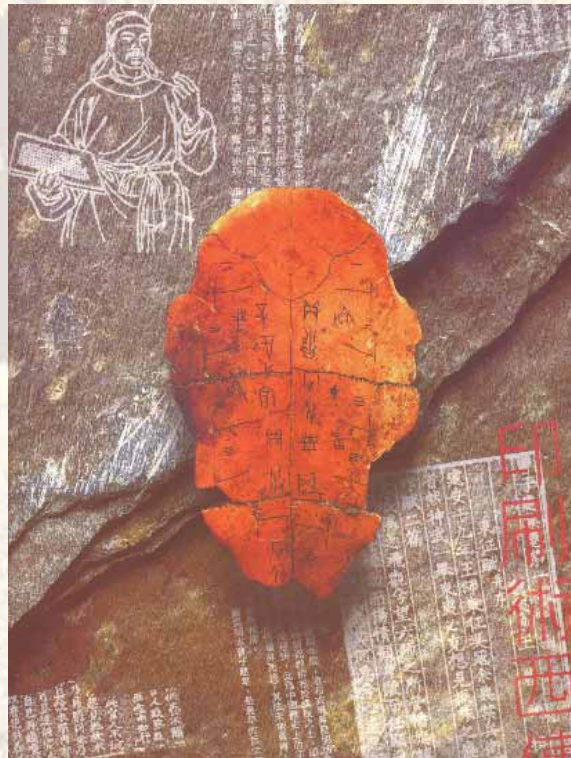


UNIQUE PP synthetic paper

PP synthetic paper, mainly made up of polypropylene, is recyclable and will not affect the service life of an incinerator as it can be completely burnt. It meets the environmental requirements of modern times as it will not create the secondary public pollution either because it will not produce toxic gas in the process of incineration. To go along with such a trend, UNIQUE has succeeded in developing large scale calandering machines to produce polypropylene film, which is a technological breakthrough as in the past the polypropylene paper could only be produced on T-die extruding machine. This new process can produce far greater volume of films in consistent quality and at faster speed to satisfy market needs. We hope that this revolutionary manufacturing process will open a new, broader horizon in the application of polypropylene.

The PP film produced through this new process still keeps the good qualities of the film produced by T-die extrusion machine. In addition to good printability, it maintains excellent resistance against chemicals, grease, folding and heat. Therefore, it is very suitable for making toxic-free thermoforming products for food packaging as well as for stationery, holders and covers.

In addition, we take advantages of the excellent properties of polypropylene to produce PP synthetic paper which resembles wood pulp made paper in all aspects. It gives similar hand feel of wood paper and is endowed with excellent writing quality, printability and very good tensile strength. It is also water-proof. Indeed, it is the most ideal substitutes for wood paper in writing, printing, and packing applications. UNIQUE hopes to contribute its own part in improving the environment by promoting the PP synthetic paper to reduce the cutting down of natural forest.



PP synthetic paper Lithograph and Binding Instructions

A.Lithograph:

- 1.Before printing please remove the wrapping material on the synthetic paper.
- 2.The synthetic paper lithograph can reach at the speed faster than 8,000 sheets of paper per hour.
- 3.Please note, function of the paper sending and receiving static electricity eliminator must be used normally.
- 4.Normal paper lithograph ink can be used, it is not necessary to use a special type of synthetic paper ink.
- 5.Using PS material for printing board is better.
- 6.Use of fountain water.
 - (1)Use a $13\% \pm 2\%$ alcohol fountain system. Alternately other volatile additives can be added to the fountain water.
 - (2)Because PP synthetic paper is not absorbent the amount of water on the plate, water should be greatly reduced.
 - (3)It is proposed that the PH value of the fountain water be kept between 5.5-6.0 Temperature should be kept at approximately 9-15°C.
- 7.Please use a fine spray powder. The volume of spray powder used should be the same as for normal art paper(it can be increased or reduced depending on printing conditions and the type of print board).
- 8.It is proposed that the height of synthetic paper piled on the paper receiver shelf should not exceed 15cm. However, this can be altered depending on the thickness of the paper and the print build up.
- 9.Do not handle printed paper, it should be left until the ink is fully dried.
- 10.Drying time:
 - (1)Can print continuously for 4-6 hours.
 - (2)Cutting, processing and sending can only happen after drying: approx, 12 hours to 24 hours.

B.Binding:

- 1.Synthetic paper is directional. As such the grain direction is clear. Before making print layout check the grain and marks on the synthetic paper.
- 2.UNIQUE synthetic paper specifications are:0.12mm(thickness)790mm(width)and 550mm (length).Grain direction is indicated parallel to the length.
- 3.The edge of books to be bound must be vertical to the direction of the grain, to ensure the strength of binding is strong enough when the pages are turned.
- 4.Synthetic paper is suitable for 3 fold cableless plastic binding operations. For the third fold a broden line grinding blade should be used to improve the flatness of the folded edge.
- 5.Cableless plastic binding should be 0.10-0.15mm in thickness. It is suited to a normal SHOEI(Japan) or STAHL(Germany)paper folding machine.
- 6.When using 3 fold "Line Feed Binding Operations"or "Saddle Stitching Operations" in binding, a grinding blade broken line should not be used for the third fold. It is suggested that a STAHL paper folder with Press Rollers should be used. This gives the flattest folded edge results. If an hydraulic pressure binder is used, the results are even better.

PP synthetic paper Lithograph and Binding Instructions

◆ Physical Properties(for reference only)

| Item | | BCA | BCC | BCD | BCT | BCP | ELLS | BYT (Emboss #922) | BCW |
|------------------|------------------|--------|--------|--------|--------|--------|--------|----------------------|--------|
| Thickness | | 0.15mm | 0.5mm | 0.18mm | 0.18mm | 0.15mm | 0.10mm | 0.15mm | 0.08mm |
| Basic weight | g/m ² | 201 | 566 | 210 | 219 | 206 | 118 | 136 | 72 |
| Specific Gravity | | 1.34 | 1.132 | 1.17 | 1.22 | 1.375 | 1.18 | 0.91 | 0.9 |
| psi | MD | 2800 ↑ | 3000 ↑ | 3900 ↑ | 3900 ↑ | 2800 ↑ | 3000 ↑ | 5500 ↑ | 6500 ↑ |
| Tensile Strength | CD | 2000 ↑ | 2500 ↑ | 2400 ↑ | 2400 ↑ | 2000 ↑ | 2000 ↑ | 4500 ↑ | 2000 ↑ |
| % | MD | 200 ↑ | 200 ↑ | 510 ↑ | 510 ↑ | 200 ↑ | 500 ↑ | 550 ↑ | 30 ↑ |
| Elongation | CD | 40 ↑ | 20 ↑ | 80 ↑ | 80 ↑ | 40 ↑ | 400 ↑ | 450 ↑ | 45 ↑ |
| gm/mm | MD | 200 ↑ | — | 440 ↑ | 440 ↑ | 200 ↑ | 600 ↑ | 1000 ↑ | 120 ↑ |
| Tear Strength | CD | 350 ↑ | — | 510 ↑ | 510 ↑ | 350 ↑ | 4000 ↑ | 1500 ↑ | 4500 ↑ |
| ER/GR | dnye.cm | 44 ↑ | 44 ↑ | 44 ↑ | 44 ↑ | 44 ↑ | 40 ↑ | (32 ↓ /36-40) | 40 ↑ |
| Whiteness | % | 78 ↑ | 84 ↑ | 85 ↑ | 90 ↑ | 86 ↑ | 87 ↑ | — | 82 ↑ |
| G.V | ER/GR % | 2~5 | 2~5 | 2~5 | 2~5 | 2~5 | 2~5 | 12-18/40-70 | 5~15 |
| T.V | % | 34 ↓ | 12 ↓ | 20 ↓ | 10 ↓ | 14 ↓ | 22 ↓ | 70 ↑ | 30 ↓ |

Trading Agent :

UNIQUE PLASTICS CORPORATION

P.O. BOX 108-258 TAIPEI, TAIWAN

TEL: (886-2) 2741-5391(Rep.)

FAX: (886-2) 2776-9998 & 2772-0866

e.mail: uniquepc@ms14.hinet.net

<http://unique-plastics.net>

B C A

New Matt paper

Matt-surface treated, elegant printing property, with specific gravity 1.34, one side gloss/one side matt is also available.

- ◆ Usage :
Poster, map, book, label, shopping bag.
- ◆ Thickness :
0.085~0.20mm



B C C

Paper for card

Matt-surface treated, excellent stiffness and printing properties.

- ◆ Usage :
Movie card, baseball card, fan, place mat.
- ◆ Thickness :
0.21~0.70mm



B C D

NEW Light Matt paper

Matt-surface treated, The strength of BCD is better than BCA, BCC, with specific gravity 1.17.

- ◆ Usage :
Advertisement,
poster, tag.
- ◆ Thickness :
0.085~0.50mm



B C T

Light Matt paper

Matt-surface treated, The opaque density of BCT is better than BCD, with specific gravity 1.22.

- ◆ Usage :
Advertisement,
poster, tag.
- ◆ Thickness :
0.085~0.50mm



B C P

Matt paper

Matt-surface treated, excellent opaque density, elegant printing property, with specific gravity 1.375; one side gloss/ one side matt is also available.

- ◆ Usage :
Book, poster, calendar, label.
- ◆ Thickness :
0.085~0.20mm



L L S

Soft paper

LLS is semi-rigid film used to substitute for semi-rigid PVC. LLS have good softness property, it can be squeezed for labelling, with specific gravity 1.18.

- ◆ Usage :
Shampoo label
Outdoor poster,
BUS poster
- ◆ Thickness :
0.08~0.12mm



SYT

Stationery

Excellent thickness distribution and flatness, It's easy to be folded and processed. It is suitable for ultrasonic welding, There are five standard colors available, such as clear, red, green, yellow and blue.

- ◆ Usage :
L-Holder, Clear-Holder, Cosmetic bags, CD Protect bags, Index...etc.
- ◆ Thickness :
(Emboss #001) :
0.10~0.20mm
(Emboss #922) :
0.10~0.30mm



BCW

Paper for lamination with woven cloth

Shine surface, can be laminated with woven cloth. and can be printed by gravure.

- ◆ Usage :
PP sheet/ cloth/ bag
processing use.
- ◆ Thickness :
0.07~0.10mm

