100% ECO Friendly

STONE PAPER

Paper made from STONE, not Trees.

No use of Trees
100% recyclable
Water proof
Energy Conserved
Fire Resistance

www.stoneagepack.com
Is a paper which the production has the lowest impact on our planet!

Stone Paper is made using an eco-friendly production process that does not utilize water or create air pollution.

No acids are utilized in the production process, and the resulting Stone Paper is completely non-toxic, and is even food safe.

Stone Paper APPLICATIONS

The use for Stone Paper is only limited by your imagination. In addition to its natural bright white color, Stone Paper has a soft, silky smooth feel.

With its key benefits such as Tear Resistance, Water Proof, Grease Repellent, Fire Resistant, Recyclable, photodegradable and more, Stone Paper is not only an alternative, but it is THE product which has the lowest impact on our green planet.

Substitute for traditional pulp papers, such as Synthetic Paper & Film (Yupo, primax, tyvek, etc...), Premium Coated Paper, Recycled Paper, and select PVC Sheet applications.

Stone Paper IS BEST USED FOR THE FOLLOWING:

- Commercial Applications
- FDA Compliant Food Packaging
- Industrial Applications
- Labels & Tags
- Outdoor Applications
- Publishing
- Displays
- Indoor Applications
- Industrial Mold & Cast Structures
- Office Use
- Personal Use
STONE PAPER APPLICATION

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FREQUENTLY ASKED QUESTIONS

Does Stone Paper need any special ink or solution for offset printing?
No. It is compatible with all of the inks and solutions.

What type of printing can be applied on Stone Paper?
Offset (sheet & roll), flexo, gravure, UV, IML printing, etc.
In digital printing, Stone Paper can be used with ink jet printing machine. HP indigo are the most powerful machine to print on Stone Paper.

How fast printed Stone Paper jobs dry at the printing machine delivery?
Printed Stone Paper jobs dry very fast at machine delivery. Even in some cases you don’t need to apply powder to protect the print.

What type of finishing can be applied on Stone Paper?
Depending on the application, Stone Paper products can also be gusseted, heat sealed, UV, embossed, sewn, mounted with grommets, and outfitted with hemp, nylon and rope.

What type of binding can be applied to Stone Paper either in packaging or publishing?
Coil, saddle stich and perfect binding. Stone Paper can be folded, die cut and glued.

Does Stone Paper need to be laminated with plastic material when it is used for the top layer of printed corrugated box?
No. When varnish is applied to the job printed on Stone Paper as well as applying IR dryer to protect the ink and paper, Stone Paper is not going to be scratched even in folding area and ink won’t be removed from the job.
The trees saved with stone paper are equivalent to Oxygen converted for 40 people.

The CO2 emission reduced is equivalent to the CO2 output of an average car driving around the world 3 1/2 times.

The trees saved with stone paper are equivalent to Oxygen converted for 40 people.

The solid waste reduced with stone paper is equivalent to the weight of up to 8 full large trash bags.

The water saved with stone paper is equivalent to taking a shower non-stop for up to 3 days!

The energy saved with Stone Paper is equivalent to 2 months of energy use for an average U.S household.
STONE PAPER CATEGORIES:

**S series**
The original Stone Paper. With a mix of stone powder and non-toxine resin, we create our innovative Stone Paper! No more need for cutting trees! No more need for wasting water! S-Class is the solution for a sustainable, multi-use, and beneficial substrate in commercial printing and converting.

**R series**
Stone Paper is always looking for ways to reinvent ourselves and move forward. How can we make an eco-friendly material even more eco-friendly? Stone Paper is reinventing itself with a new 100% recycled Stone Paper formula – The R-Series. R-Series has the same great characteristics as S-Class with an extra kick of Reutilization!

**R pallet**
R-Pallet is recycled Stone Paper pellet! R-Pallet is the newest member of Stone Paper and has not formally been released to the public yet! R-Pallet’s main use is for injection molding applications. This is where plastic pellets are melted and then injected into a mold for shaping. Many of our plastic products today are made through this type of process. R-Pallet is created by the in-house recycling process of our team. This is the next step to reusing 100% of our recycled content and putting back into the market as a usable product. Standards for R-Pallet has not been set yet.

*RP* is a text paper stock grade of Stone Paper which is produced with coating (to be printable) or without coating (for some other applications like wood laminating).

*RB* is a card stock grade of Stone Paper which is produced either with coating (to be printable) or without coating (for some other industrial applications).

*SP* is an industrial type material, mainly for plastic film applications. If S-film is using for printing applications, it have to have corona treatment either on both or one side.

Corona treatment is a special surface treatment that is applied on plastic films to facilitate printing. Normally corona treatment is valid for 3 months before it needs to be re-applied again.

**How corona treatment relates to SP?**
Corona is a special surface treatment that is applied to one or both sides of SP paper. This treatment is essential if rotary Printing is required. Corona Treatment must not be done if heat sealing is required.

*ST* is a board-like material used mainly to replace plastic thermoforming applications, hence the thicker material. Although few applications require the need to print on S-Thermo, it can still be printed on by using corona treatment on its surface.

**Thermoforming** is a converting process which heats up a substrate to print where it is soft enough to shape it in a mold, even though S-Thermo can withstand the heat of thermoforming, it is still not recommended for applications which will be used in microwaves or ovens.
### Applications of S-Series

<table>
<thead>
<tr>
<th>Thickness (Micron)</th>
<th>Density</th>
<th>GSM</th>
<th>M2/Ton</th>
<th>Some of Application</th>
</tr>
</thead>
<tbody>
<tr>
<td>50</td>
<td>1</td>
<td>50</td>
<td>22222</td>
<td>Food Package Linings, Hamburger Wrapping, Soap Wrap</td>
</tr>
<tr>
<td>80</td>
<td>1</td>
<td>80</td>
<td>12500</td>
<td>Wet tissue Packaging, Face Masks, Cup Lid (Heat seal)</td>
</tr>
<tr>
<td>100</td>
<td>1</td>
<td>100</td>
<td>10000</td>
<td>Medicine Bags, inner Lining for bags, soft Packaging</td>
</tr>
</tbody>
</table>

**SP (S-Film) are Best Suited To Rotary UV Printing**

<table>
<thead>
<tr>
<th>Grade</th>
<th>Thickness (Micron)</th>
<th>Density</th>
<th>GSM</th>
<th>Some of Application</th>
</tr>
</thead>
<tbody>
<tr>
<td>SP</td>
<td>100</td>
<td>0.8</td>
<td>120</td>
<td>Curtains, Lamination With Flexible Packaging, Origami Paper, Note book Paper</td>
</tr>
<tr>
<td></td>
<td>120</td>
<td>0.8</td>
<td>144</td>
<td>Note books, Loose Leaf Pages, Lamination with Cardboard Boxes, Envelopes, IML Printing (In-Molded Labeling), Maps, Ski Maps, labels, Books</td>
</tr>
<tr>
<td></td>
<td>140</td>
<td>0.8</td>
<td>168</td>
<td>Calendar, Posters, Wine labels, Sunshield, etc.</td>
</tr>
<tr>
<td></td>
<td>160</td>
<td>0.8</td>
<td>192</td>
<td>Calendar, Shopping Bags, DM, Envelopes</td>
</tr>
<tr>
<td></td>
<td>180</td>
<td>0.8</td>
<td>216</td>
<td>Shopping Bags, synthetic leather</td>
</tr>
<tr>
<td></td>
<td>200</td>
<td>0.8</td>
<td>240</td>
<td>Shopping Bags, Posters, Book Cover, Synthetic Leather</td>
</tr>
</tbody>
</table>

**RP (S-Eco) are Best Suited To offset Printing**

<table>
<thead>
<tr>
<th>Grade</th>
<th>Thickness (Micron)</th>
<th>Density</th>
<th>GSM</th>
<th>Some of Application</th>
</tr>
</thead>
<tbody>
<tr>
<td>RP</td>
<td>200</td>
<td>1.4</td>
<td>280</td>
<td>Business Cards, Shelf Pop outs, Plant Tags (Hang of the plant)</td>
</tr>
<tr>
<td></td>
<td>250</td>
<td>1.4</td>
<td>350</td>
<td>Pop tags, Greeting Cards</td>
</tr>
<tr>
<td></td>
<td>300</td>
<td>1.4</td>
<td>420</td>
<td>Fridge Containers (Sea food products), Lighting sculpture, Vases</td>
</tr>
<tr>
<td></td>
<td>350</td>
<td>1.4</td>
<td>490</td>
<td>Children Teaching Materials, Garment Tags, Lamp shades</td>
</tr>
<tr>
<td></td>
<td>400</td>
<td>1.4</td>
<td>560</td>
<td>Ice cream trays, fish mat, meat, telephone card</td>
</tr>
</tbody>
</table>

**RB (S-Board) are Best Suited To Offset Printing/UV offset Printing**

<table>
<thead>
<tr>
<th>Grade</th>
<th>Thickness (Micron)</th>
<th>Density</th>
<th>GSM</th>
<th>Some of Application</th>
</tr>
</thead>
<tbody>
<tr>
<td>RB</td>
<td>400</td>
<td>1.6</td>
<td>640</td>
<td>Soap tray, Mobile phone tray, chocolate liner</td>
</tr>
<tr>
<td></td>
<td>500</td>
<td>1.6</td>
<td>800</td>
<td>Lunch box, Fruit box, yogurt wrapping Box, tags</td>
</tr>
<tr>
<td></td>
<td>600</td>
<td>1.6</td>
<td>960</td>
<td>Yogurt Tubs, cookie Containers, membership cards</td>
</tr>
<tr>
<td></td>
<td>700</td>
<td>1.6</td>
<td>1120</td>
<td>Ice cream tubs, fish mat, meat, telephone card</td>
</tr>
</tbody>
</table>

**ST (S-Thermo) are Best suited To Offset Printing**

<table>
<thead>
<tr>
<th>Grade</th>
<th>Thickness (Micron)</th>
<th>Density</th>
<th>GSM</th>
<th>Some of Application</th>
</tr>
</thead>
<tbody>
<tr>
<td>ST</td>
<td>400</td>
<td>1.6</td>
<td>640</td>
<td>Soap tray, Mobile phone tray, chocolate liner</td>
</tr>
<tr>
<td></td>
<td>500</td>
<td>1.6</td>
<td>800</td>
<td>Lunch box, Fruit box, yogurt wrapping Box, tags</td>
</tr>
<tr>
<td></td>
<td>600</td>
<td>1.6</td>
<td>960</td>
<td>Yogurt Tubs, cookie Containers, membership cards</td>
</tr>
<tr>
<td></td>
<td>700</td>
<td>1.6</td>
<td>1120</td>
<td>Ice cream tubs, fish mat, meat, telephone card</td>
</tr>
</tbody>
</table>

### Different Categories of Stone Paper (S-Series) are: SP, RP, RB & ST

<table>
<thead>
<tr>
<th>Grade</th>
<th>Thickness (Micron)</th>
<th>Density</th>
<th>GSM</th>
<th>Variation</th>
<th>Composition</th>
</tr>
</thead>
<tbody>
<tr>
<td>SP (S-Film)</td>
<td>50,80,100</td>
<td>1</td>
<td>50</td>
<td>Thickness* density</td>
<td>+,- %10</td>
</tr>
<tr>
<td>RP (S-Eco)</td>
<td>100,120,140,160,180,200</td>
<td>0.8, 1.1, 1.2</td>
<td>Thickness* density</td>
<td>+,- %7</td>
<td>%80 Calcium carbonate, %20 HDPE</td>
</tr>
<tr>
<td>RB (S-Board)</td>
<td>200,250,300,350,400</td>
<td>1.4</td>
<td>Thickness* density</td>
<td>+,- %5</td>
<td>%60 Calcium carbonate, %40 HDPE</td>
</tr>
<tr>
<td>ST (S-Thermo)</td>
<td>400,500,600,700</td>
<td>1.6</td>
<td>Thickness* density</td>
<td>+,- %10</td>
<td>%60 Calcium carbonate, %40 HDPE</td>
</tr>
</tbody>
</table>
**NOTICE TO PRINT SHOPS, GRAPHIC DESIGNERS AND ALL ENTITIES INVOLVED IN THE PUBLISHING AND PRINTING INDUSTRY:**

**Stone Paper** is produced in variety of thicknesses from 50 – 700 micron for different applications.

- **Stone Paper** can be supplied in sheet, rolls. It can be provided in variety of sizes including standard and custom made sizes.

Due to its waterproof characteristics, **Stone Paper** is also used for adhesive label applications with range of adhesion bond strength.

The following is valid to consider when printing on **Stone Paper**:

- **Stone Paper** applications are not limited to printing, publishing and packaging industries

- **Stone Paper** behaves similarly to matt or glossy offset paper when in interaction with offset printing machine, therefore there is no need for different type of ink or plate (Zinc)

Because our **Stone Papers** are photo-degradable. Meaning degrading with the intensity of UV light. When our papers are used in laser printers and UV is exposed to the paper, the paper reacts to the UV light and starts the degrading mechanism.

Therefore Laser printers are a NO GO at this point in time. But it is not the end of the story. As you can see this brochure, HP Indigo machine one of the digital printing machines that can print on **Stone Paper** due to its ink jet mechanism.

- **Stone Paper** unlike PVC sheet, dries extremely quick at delivery.

- Even though labels made with **Stone Paper** are very similar in looks and certain characteristics to PVC sheets, they can still be printed using regular inks without the extra attention needed with PVC printing.

- **Stone Paper** can be used for indoors and outdoors banners with machines which its temperature does not exceed 100 degrees Celsius (Latex printing).

- **Stone Paper** doesn't show any reaction such as breakage when folded.

- For all technical assistance with **Stone Paper**, please do not hesitate to contact our technical department.

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Founded in 2010, Stone Age Packaging is the extension of our commitment to environmental responsibility, which originated with our entry into eco-friendly industry. Our goal starts with global awareness of an alternative industry leading the next generation to a more sustainable and healthy environment.

Pursuant to this goal, it is our view that paper and its production process leads to deforestation as well as grave environmental damage to our planet.

Stone Paper production technique differs from wood pulp papermaking process through the exclusive use of blend of mineral powder and a small infusion of a non-toxic resin. As a result Stone Paper produced uses no trees, no water pollution, and without any harmful gaseous waste.

This revolutionary Stone Papermaking technology is patented in 40 countries including Australia, Canada, China, Europe, USA and South Africa.

Stone Paper is not only an alternative, but it is THE product which has the lowest impact on our green planet. Therefore it’s affordability and price competitiveness is of outmost importance.