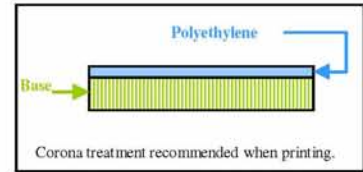


# EMANAGREEN

## TECHNICAL DATASHEET

### RPD SERIES



#### Description:

SAN Series is a dual layer substrate composed of the base paper and a layer of polyethylene.

#### Base Composition:

- 70% CaCO<sub>3</sub>
- 28% HDPE
- 2% Others

#### Product Features:

Environmentally preferable: 100% Tree Free, No Water, No Bleach, No Acid, No Fluorescence

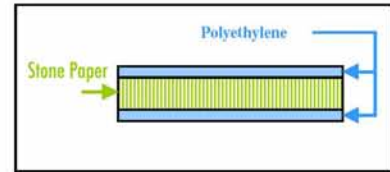
Better protection & performance while eliminating key functional coatings:

- + Waterproof & greaseproof– eliminates wax coating or film lamination
- + Non-absorbent
- + No grain direction
- + Cut/die cut like traditional paper
- + Antimicrobial
- + FDA Compliant
- + RoHS Compliant
- + REACH Compliant
- + Cradle 2 Cradle - Silver

#### TECHNICAL DATA (Typical Values)

Properties	SAN50	SAN80	SAN100	Unit	Measuring Method
Thickness	50/2.0	80/3.2	100/4.0	µm/pt	CNS 3685
Weight	50	80	100	g/m <sup>2</sup>	CNS 1352
Tensile Strength					
MD	>1.0	>1.5	>1.5	kg/cm <sup>2</sup>	GB 13022-91
TD	>0.4	>1.0	>1.0	kg/cm <sup>2</sup>	GB 13022-91
Tear Strength					
MD	>0.2	>0.2	>0.2	gf	QB/T 1130-91
TD	>0.4	>0.4	>0.4	gf	QB/T 1130-91
Dimensional Stability					
MD	<-1.5	<-3.5	<-3.5	%	GBT 12027-2004
TD	<-1.5	<-1.5	<-1.5	%	GBT 12027-2004
Opacity	>60	>80	>90	%	CNS 14931
Whiteness	>70	>80	>80	%	CNS 12885
Gloss Value	5.0	5.0	5.0	%	CNS 7299
Roughness					
MD	<2.5	<2.5	<2.5	µm	CNS 15238
TD	<2.5	<2.5	<2.5		
Surface Resistivity	10 <sup>11</sup>	10 <sup>11</sup>	10 <sup>11</sup>	S	TAPPI T-527
Variance	8.0	8.0	8.0	%	CNS 3685

# EMANAGREEN TECHNICAL DATASHEET RPD SERIES



## Description:

SPN Series is a triple layer substrate composes of the base paper with co-extruded polyethylene layers on both surfaces.

### Base Composition:

70% CaCO<sub>3</sub>  
28% HDPE  
2% Others

## Product Features:

Environmentally preferable: 100% Tree Free, No Water, No Bleach, No Acid, No Fluorescence

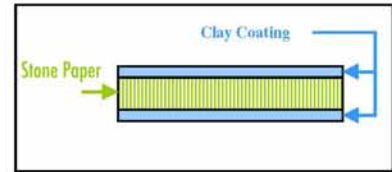
Better protection & performance while eliminating key functional coatings:

- + Waterproof & greaseproof– eliminates wax coating or film lamination
- + Non-absorbent
- + No grain direction
- + Cut/die cut like traditional paper
- + Antimicrobial
- + FDA Compliant
- + RoHS Compliant
- + REACH Compliant
- + Cradle 2 Cradle - Silver

## TECHNICAL DATA (Typical Values)

Properties	SPN50	SPN80	SPN100	Unit	Measuring Method	
Thickness	50/2.0	80/3.2	100/4.0	µm/pt	CNS 3685	
Weight	50	80	100	g/m <sup>2</sup>	CNS 1352	
Tensile Strength	MD	>1.0	>1.5	>1.5	kg/cm <sup>2</sup>	GB 13022-91
	TD	>0.5	>0.5	>1.5	kg/cm <sup>2</sup>	GB 13022-91
Tear Strength	MD	>0.2	>0.2	>0.3	gf	QB/T 1130-91
	TD	>0.3	>0.3	>0.5	gf	QB/T 1130-91
Dimensional Stability	MD	<-1.5	<-3.0	<-3.0	%	GBT 12027-2004
	TD	<-1.5	<-3.0	<-3.0	%	GBT 12027-2004
Opacity	>70	>90	>90	%	CNS 14931	
Whiteness	>75	>82	>82	%	CNS 12885	
Gloss Value	7.0	7.0	7.0	%	CNS 7299	
Roughness	MD	<2.5	<2.5	<2.5	µm	CNS 15238
	TD	<2.5	<2.5	<2.5		
Surface Resistivity	10 <sup>11</sup>	10 <sup>11</sup>	10 <sup>11</sup>	S	TAPPI T-527	
Variance	8.0	8.0	8.0	%	CNS 3685	

# EMANAGREEN TECHNICAL DATASHEET RPD SERIES



## Description:

RPD Series is a triple layer substrate composes of the base paper with clay coating on both surfaces.

### Base Composition:

- 80% CaCO<sub>3</sub>
- 18% HDPE
- 2% Others

## Product Features:

Environmentally preferable: 100% Tree Free, No Water, No Bleach, No Acid, No Fluorescence

Better protection & performance while eliminating key functional coatings:

- + Waterproof & greaseproof– eliminates wax coating or film lamination
- + Non-absorbent
- + No grain direction
- + Cut/die cut like traditional paper
- + Antimicrobial
- + FDA Compliant
- + RoHS Compliant
- + REACH Compliant
- + Cradle 2 Cradle - Silver

## TECHNICAL DATA (Typical Values)

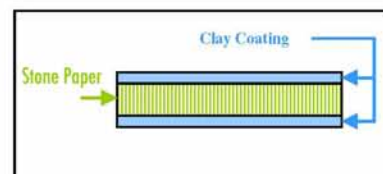
Properties	RPD100	RPD120	RPD140	RPD160	RPD200	Unit	Measuring Method
Thickness	100/4.0	120/4.8	140/5.6	160/6.4	200/8.0	µm/pt	CNS 3685
Weight	120	144	168	192	240	g/m <sup>2</sup>	CNS 1352
Tensile Strength							
MD	>1.5	>1.5	>2.0	>2.0	>2.5	kg/cm <sup>2</sup>	GB 13022-91
TD	>1.5	>1.5	>2.0	>2.0	>2.5	kg/cm <sup>2</sup>	GB 13022-91
Tear Strength							
MD	>0.3	>0.3	>0.3	>0.4	>0.4	gf	QB/T 1130-91
TD	>0.4	>0.4	>0.4	>0.5	>0.5	gf	QB/T 1130-91
Dimensional Stability							
MD	<-1.5	<-1.5	<-1.5	<-2.0	<-2.0	%	GBT 12027-2004
TD	<-2.0	<-2.0	<-2.0	<-4.0	<-4.0	%	GBT 12027-2004
Opacity	>92	>92	>92	>92	>94	%	CNS 14931
Whiteness	>84	>84	>84	>86	>86	%	CNS 12885
Gloss Value	2.5	2.5	2.5	2.5	2.5	%	CNS 7299
Roughness							
MD	<1.5	<1.5	<1.5	<1.5	<2.0	µm	CNS 15238
TD	<1.5	<1.5	<1.5	<1.5	<2.0		
Surface Resistivity	10 <sup>11</sup>	10 <sup>11</sup>	10 <sup>11</sup>	10 <sup>11</sup>	10 <sup>11</sup>	S	TAPPI T-527
Variance	<7.0	<7.0	<7.0	<7.0	<7.0	%	CNS 3685



# EMANAGREEN

## TECHNICAL DATASHEET

### RPD SERIES



#### Description:

RBD Series is a triple layer substrate composes of the higher density base paper clay coating on both surfaces.

#### Base Composition:

- 60% CaCO<sub>3</sub>
- 38% HDPE
- 2% Others

#### Product Features:

Environmentally preferable: 100% Tree Free, No Water, No Bleach, No Acid, No Fluorescence

Better protection & performance while eliminating key functional coatings:

- + Waterproof & greaseproof– eliminates wax coating or film lamination
- + Non-absorbent
- + No grain direction
- + Cut/die cut like traditional paper
- + Antimicrobial
- + FDA Compliant
- + RoHS Compliant
- + REACH Compliant
- + Cradle 2 Cradle - Silver

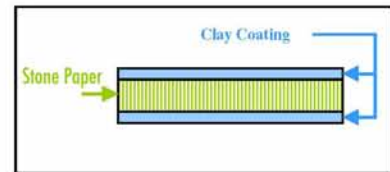
#### TECHNICAL DATA (Typical Values)

Properties	RBD200	RBD250	RBD300	RBD350	RBD400	Unit	Measuring Method
Thickness	200/8.0	250/10.0	300/12.0	350/14.0	400/16.0	µm	CNS 3685
Weight	280	350	420	490	560	g/m <sup>2</sup>	CNS 1352
Tensile Strength							
MD	>1.0	>1.0	>1.5	>1.5	>1.5	kg/cm <sup>2</sup>	GB 13022-91
TD	>2.0	>2.0	>3.0	>3.0	>3.0	kg/cm <sup>2</sup>	GB 13022-91
Tear Strength							
MD	>1.5	>2.5	>2.5	>4.0	>4.5	gf	QB/T 1130-91
TD	>1.0	>1.5	>1.5	>2.5	>3.0	gf	QB/T 1130-91
Dimensional Stability							
MD	<-2.5	<-2.5	<-2.5	<-2.5	<-2.5	%	GBT 12027-2004
TD	<1.0	<1.0	<1.0	<1.0	<1.0	%	GBT 12027-2004
Opacity	>95	>95	>95	>95	>95	%	CNS 14931
Whiteness	>82	>82	>82	>82	>82	%	CNS 12885
Gloss Value	2.0	2.0	2.0	2.0	2.0	%	CNS 7299
Roughness							
MD	<1.0	<1.0	<1.0	<1.0	<1.0	µm	CNS 15238
TD	<1.0	<1.0	<1.0	<1.0	<1.0		
Surface Resistivity	10 <sup>11</sup>	10 <sup>11</sup>	10 <sup>11</sup>	10 <sup>11</sup>	10 <sup>11</sup>	S	TAPPI T-527
Variance	<7.0	<7.0	<7.0	<7.0	<7.0	%	CNS 3685

# EMANAGREEN

## TECHNICAL DATASHEET

### RPD SERIES



#### Description:

STN Series is a triple layer substrate composes of the higher density base paper clay coating on both surfaces.

#### Base Composition:

- 60% CaCO<sub>3</sub>
- 38% HDPE
- 2% Others

#### Product Features:

Environmentally preferable: 100% Tree Free, No Water, No Bleach, No Acid, No Fluorescence

Better protection & performance while eliminating key functional coatings:

- + Waterproof & greaseproof– eliminates wax coating or film lamination
- + Non-absorbent
- + No grain direction
- + Cut/die cut like traditional paper
- + Antimicrobial
- + FDA Compliant
- + RoHS Compliant
- + REACH Compliant
- + Cradle 2 Cradle - Silver

#### TECHNICAL DATA (Typical Values)

Properties	STN400	STN500	STN600	STN700	STN800	Unit	Measuring Method
Thickness	400/16.0	500/20.0	600/24.0	700/28.0	800/32.0	µm	CNS 3685
Weight	640	800	960	1120	1280	g/m <sup>2</sup>	CNS 1352
Tensile Strength							
MD	>2.0	>2.0	>3.0	>3.0	>3.0	kg/cm <sup>2</sup>	GB 13022-91
TD	>1.5	>1.5	>1.5	>1.5	>1.5	kg/cm <sup>2</sup>	GB 13022-91
Tear Strength							
MD	>2.5	>2.5	>4.0	>4.5	>4.5	gf	QB/T 1130-91
TD	>3.0	>3.0	>4.5	>4.5	>4.5	gf	QB/T 1130-91
Dimensional Stability							
MD	<-2.0	<-2.0	<-2.0	<-2.0	<-2.0	%	GBT 12027-2004
TD	<0.5	<0.5	<0.5	<0.5	<0.5	%	GBT 12027-2004
Opacity	>95	>95	>95	>95	>95	%	CNS 14931
Whiteness	>80	>80	>80	>83	>83	%	CNS 12885
Gloss Value	20.0	20.0	20.0	20.0	20.0	%	CNS 7299
Roughness							
MD	<0.8	<0.8	<0.8	<0.8	<0.8	µm	CNS 15238
TD	<0.8	<0.8	<0.8	<0.8	<0.8		
Surface Resistivity	10 <sup>11</sup>	10 <sup>11</sup>	10 <sup>11</sup>	10 <sup>11</sup>	10 <sup>11</sup>	S	TAPPI T-527
Variance	<7.0	<7.0	<7.0	<7.0	<7.0	%	CNS 3685

# STONE PAPER EMANAGREEN MATERIAL SAFETY DATA SHEET

1. Identification		
<i>Material identity:</i>	<b>Stone Paper EmanaGreen</b>	
<i>Producer Address:</i>	NO. 24 Pei Shi Chau, Tainan County, Taiwan	
<b>Emergency Number:</b>		
2. Composition		
<b>Primary Ingredients</b>	<b>Chemical Name/Formula</b>	<b>Percentage*</b>
Calcium Carbonate,	CaCO <sub>3</sub>	60-80%
High Density Polyethylene, HDPE	Ethylene Polymer	18-38%
Other Additives		2%
<i>Dangerous components:</i>	None (see RoHS report)	
<i>* Percentage varies according to the density and caliper of the material.</i>		
3. Hazards Identification		
<i>Physical form &amp; appearance</i>	Solid White Paper / Film	
<i>Emergency overview</i>	The material is not dangerous. Combustible. Not known to release toxic vapors, gases or fumes	
<i>Potential acute health effects</i>	Not Harmful	
4. First Aid Measures		
- Not Required -		
5. Fire Fighting Measure		
<i>Suitable extinguishing Media</i>	Water, Water fog, CO <sub>2</sub> , Foam or dry extinguishers	
<i>Exiting. media to be avoided</i>	None required	
<i>Protective clothing</i>	None required	
6. Spillage		
- Not Required -		
7. Handling and Storage		
<i>Handling</i>	No special requirement	
<i>Storage</i>	Out of direct sun light, in well ventilated, cool and dry places	
<i>Fire precautions</i>	Avoid any contact with sources of extreme heat or fire	
8. Personal Protection		
<i>Engineering control measures</i>	None required	
<i>Eye</i>	None required	
<i>Body</i>	None required	
<i>Respiratory</i>	None required	
<i>Hands</i>	None required	
<i>Feet</i>	None required	
9. Physical and Chemical Properties		
<i>Appearance</i>	Solid	
<i>Form</i>	Sheets / Rolls	
<i>Color</i>	White / Blue-white	
<i>Odor</i>	None	
<i>Flash point</i>	> 570 °F > 300 °C	
<i>Melting Point/Range</i>	> 250 °F > 121 °C	
<i>Explosive Properties</i>	None known	
<i>Specific Gravity</i>	1.0 ~ 1.2 g/cm <sup>3</sup>	
10. Stability and Reactivity		
Stable at temperatures below melting point		
11. Toxicological Information		
Negative in patch test on sundries		
12. Ecological Information		
The product is not biodegradable. In can be recycled using suitable technologies. It is not a water endangering material. It will slowly degrade by solar UV irradiation.		
13. Disposal Information		
Dispose of in accordance with local, state and federal regulations. Landfilling and incineration can be considered in most cases suitable		
14. Transportation Information		
No special requirement		
15. Regulation Information		
None		
16. Other Information		
The information provided is to the best of our knowledge and accuracy. However, neither the above stated manufacturer nor any of its subsidiaries or affiliations assumes any liability whatsoever for the accuracy or completeness of the information contained herein. This document is not a technical sheet for use of the product, it is intended only as a guide to the appropriate precautionary handling of the material. Individual receiving the information must applying all the relevant regulations and taking all the relevant safety precautions.		