Technical Data Sheet



June 2023 METALLICS

Sparkling, fancy and timeless these are the best ways to define the Curious Metallics range. Among its 17 colours we have the exceptional Ice Silver, Ice Gold, Super Gold and Night, the range is full of amazing colours perfect to respond to all your needs.

Curious Metallics offer many possibilities of ideas and creations with its different weights and shades, it is perfect for book covers, posters, wedding invitations, greeting cards as well as for luxury packaging. It is also available in digital formats for customized or short-run projects.

## **Printing Guidelines**

#### **Print Techniques**

Suitable for widely used print techniques, including offset lithography, letterpress, embossing, debossing, silkscreening, die-stamping and foil-blocking. A pre-test is recommended for thermography.

#### **Preparation**

Avoid extreme humidity or temperature condition and keep the paper as long as possible in the wrapper before use.

#### Inks

We recommend using fully oxidising inks. Please consult your ink manufacturer for specific colours or formulations. Curious Metallics do not contain ground metals and are not foil papers

## **Screen Ruling**

we recommend screen rulings of 130-163 lpi to obtain the best result

#### Laminating

The paper accepts laminates easily, although some 'silvering' may occur. Increase laminating pressure and apply excess adhesive to help reduce silvering. Laminates will reduce or negate the metallic effect

#### **Spraying**

We recommend using spray powder with a particle size of 35 microns or above when printing board weights.

#### **Digital Printing**

Curious Metallics is suitable for Dry Toner and HP Indigo printing











June 2023 METALLICS

Property & Unit	Standard	Side or Direction			
GSM (g/m2)	ISO 536	-	120	250	300
Thickness (μm)	ISO 534	-	157	335	400
Roughness Bendtsen (%)	ISO 8791-2	Front	550	550	550
Roughness Bendtsen (%)	ISO 8791-2	Back	650	650	650
L&W Stiffness[15° / 50 mm] (mN)	ISO 2493	MD	300	150	240
L&W Stiffness[15° / 50 mm] (mN)	ISO 2493	CD	150	75	120
Absolute Humidity (%)	ISO 287	-	6.0	6.0	6.0
Bulk (cm3 /g)	ISO 534	-	1.31	1.34	1.33









Property & Unit	Standard	Side or Direction			
GSM (g/m2)	ISO 536	-	120	250	300
Thickness (μm)	ISO 534	-	138	292	365
Roughness Bendtsen (%)	ISO 8791-2	Front	250	250	250
Roughness Bendtsen (%)	ISO 8791-2	Back	400	350	350
L&W Stiffness[15° / 50 mm] (mN)	ISO 2493	MD	220	110	200
L&W Stiffness[15° / 50 mm] (mN)	ISO 2493	CD	110	55	100
Absolute Humidity (%)	ISO 287	-	6.0	6.0	6.0
Bulk (cm3 /g)	ISO 534	-	1.15	1.17	1.24









# **METALLICS** Ice Silver

Property & Unit	Standard	Side or Direction			
GSM (g/m2)	ISO 536	-	120	250	300
Thickness (μm)	ISO 534	-	157	335	400
Roughness Bendtsen (%)	ISO 8791-2	Front	550	550	550
Roughness Bendtsen (%)	ISO 8791-2	Back	650	650	650
L&W Stiffness[15° / 50 mm] (mN)	ISO 2493	MD	300	150	250
L&W Stiffness[15° / 50 mm] (mN)	ISO 2493	CD	150	75	125
Absolute Humidity (%)	ISO 287	-	6.0	6.0	6.0
Bulk (cm3 /g)	ISO 534	-	1.31	1.34	1.33









June 2023

# **METALLICS** Ionised

Property & Unit	Standard	Side or Direction		
GSM (g/m2)	ISO 536	-	120	300
Thickness (μm)	ISO 534	-	157	400
Roughness Bendtsen (%)	ISO 8791-2	Front	550	550
Roughness Bendtsen (%)	ISO 8791-2	Back	650	650
L&W Stiffness[15° / 50 mm] (mN)	ISO 2493	MD	300	250
L&W Stiffness[15° / 50 mm] (mN)	ISO 2493	CD	150	125
Absolute Humidity (%)	ISO 287	-	6.0	6.0
Bulk (cm3 /g)	ISO 534	-	1.31	1.33









June 2023 MATTER

Curious Matter differs from the other in its feel, which is somewhere between silk and sand. In addition, Curious Matter offers a good colour pallet, ranging from neutral tones such as Goya White and Andina Grey to intense tones such as Adrion Blue, Desiree Red and Black Truffle.

Curious Matter is good tool to add a sensory experience to your creative project.

## **Printing Guidelines**

#### Offset litho

- <u>Design and Pre-press:</u> We recommend screen ruling of 130-150 lpi. Under-colour removal can considered used depending on the quality of the visual. Aim for the total ink film weight of 260%.
- <u>Printing ink:</u> We recommend the use of a conventional positive drying ink with our without infrared drying assistance. Oxidizing inks or UV inks are suitable.
- <u>Paper handling:</u> We recommend 35 microns anti set off spray for board and 20 microns for paper in order to avoid marking and set-off when printing.

#### Sealer and coatings

They can be used to reduce marking for further operation, but coatings are not recommended as they can change the feel of the paper. Make sure the inks are suitable. Best results are obtained when the inks are dry before sealing.

#### Varnishing

Ensure appropriate inks are used before varnishing and that the inks are completely dry before applying the varnish.

#### Hot foil stamping

Curious Matter can be stamped and foils. Trials may be recommended to validate compatibility with the foil.

#### Film lamination

The paper can be laminated. However, there will be some "silvering" to reduce silvering, increase lamination pressure apply excess adhesive if wet glue lamination is used.

#### Die and laser cutting

Matter papers and boards can be die cut. During laser cutting, scratches are visible around the cut area and the colour inside the paper will change, you can play with this to create nice designs.

#### Binding and adhesives

It is possible to glue the papers to themselves and to other materials. Standard binding techniques can also be used.

#### Office Printing

The compatibility with office printers should be tested, the range is not suitable for inkjet printers.

#### Digital technologies

The Digital range is certified for Dry Toner and HP Indigo presses













June 2023 MATTER

Property & Unit	Standard					
GSM	EN ISO 536	135	270	380		
Caliper (μm)	ISO 534	210	365	480		
Goya white opacity (%)	ISO 2471	92 93		-		
Bendtsen Roughness (ml/min)	ISO 2492	1600				
Stiffness [M / C direction] (mN)	ISO 2493	11/6	90 / 50	220 / 100		
Moisture content (%)	ISO 287		6.5			
Relative humidity (%)	TAPPI T502	40 - 60				













June 2023 SKIN

Curious Skin offers you a luxurious feel and a silky smoothness. With its uniform and matt surface, Curious Skin is the perfect paper for book covers, invitations and luxury packaging.

Curious Skin is scratch and fingerprint resistant, making your future creations more durable than other papers. The range also offers essential colours to answer any creative needs.

# **Printing Guidelines**

#### Offset litho

- <u>Design and Pre-press:</u> We recommend screen ruling of 175 lpi. Removal of the under colour may be considered for jobs with large areas of dark ink.
- Printing ink: For all other colours in the range, we recommend the use of fully oxidizing inks, UV inks are suitable.
- Paper handling: We recommend 35 microns anti -peel spray for cardboard and 20 microns for paper to prevent marking and peeling during printing. Always protect the paper from humidity and temperature changes by using stock covers or stretch wrap.

#### Sealer and coatings

They can be used to help reduce marking for later operation, to ensure that inks are suitable and to achieve best results when inks are dry before sealing.

#### Coating

Excellent results can be achieved by spot UV coating through the screening process. Care should be taken to ensure that appropriate inks are used prior to coating and that the inks are completely dry before the coating is applied.

#### Hot foil stamping

Curious Skin can be foil stamped, ensure the use of compatible film and do not use transparent film. Curious Skin Black doesn't contain carbon black so you can foil it without any risk of oxidation.

#### Film lamination

The paper can be laminated. However, the visual appearance and feel will be lost.

#### Die and laser cutting

Skin papers and boards can be die cut, while laser cutting is easy. Some scratching will be apparent around the cut area.

#### Binding and adhesives

It is possible to glue the papers with appropriate adhesives, use PUR hot melt adhesive for perfect binding.

#### Office Printing

The range is not recommended with office printers.













June 2023 SKIN

Property & Unit	Standard				
GSM	EN ISO 536	135	270	380	
Caliper (µm)	ISO 534	135	300	415	
Extrat white opacity (%)	ISO 2471	95.5	-	-	
Bekk Smothness (Bekk sec)	ISO 5627	50	60	60	
Stiffness [M / C direction] (mN)	ISO 2493	20 / 14	160 / 80	410 / 210	
Moisture content (%)	ISO 287	5	5	5.5	
Relative humidity (%)	TAPPI T502	45			













June 2023 TRANSLUCENTS

Add a special touch to your projects with **Curious Translucents**. Attractive look and feel, these papers allow your print to float and give a window into designs below, transitioning between diffused contours and full details. Transparent and resistant to ageing, it is also perfect for brochures, cover, invitations, cards,

#### **Printing Guidelines**

#### **Offset Printing**

Printing should be carried out using inks (foil inks) that dry purely by oxidation. Deploy lower damping (pH > 5.5) and print in small stacks. In the case of reduced trapping, a trapping stripe as broad as possible also needs to be printed. To avoid set-off, powder spraying should be carried out. In the case of increased ink film thickness when printing solid areas, and in the case of two-sided printing, UV drying is recommended. For UV drying, the paper should be stored flat. Second generation UV emitters featuring heat filters are especially recommended. During IR drying, curling and/or warping may occur due to the build up of heat.

#### **Desktop inkjet/laser printing**

Curious Translucent is suitable for printing using laser and inkjet printers for desktop use.

#### **Cutting**

The use of a slightly blunted hard alloy blade with a 26° ground angle and bevel, as well as a 5 cm stack thickness, is recommended.

#### **Climate**

Transparent papers are particularly sensitive to climatic conditions. To ensure faultless print finishing, we recommend water-vapour-proof, print-stack packaging immediately after printing.

#### **Pre-print**

Curious Translucent is also suitable for pre-print applications.

#### **Blind Embossing**

Curious Translucent is suitable for blind embossing but may develop a milky discoloration, Test embossing is recommended.

#### Die Cutting/Drilling/Punching

Curious Translucent Bright White is well-suited for die-cutting, drilling, punching and laser die-cutting.

#### **Hot Foil Blocking**

We recommend an extremely solid material for the back pressure. Extremely dry foils are best suited together with a standard adhesive. Foil blocking is not particularly suitable for laser processing. Test stamping is recommended.

#### **Overprint Varnishing**

We recommend varnishing using water-based or UV varnish.

#### **Binding/Gluing**

Please ensure that the grain direction runs parallel to the adhesive binding, we recommend the use of adhesives containing little or no water such as Hot melt or PUR. For the best results, carry out test bindings on dummies.









Property & Unit	Standard		
GSM	EN ISO 536	100	210
Thickness (µm)	EN 20534	83	168
Bulk spec. (cm3 /g)	DIN 53105	0.8	0.8
Moisture (%)	EN 20287	7	7
Optical Whiteness (%)	DIN 53145-2	93.5	93.5
Smoothness Bekk (sec.)	DIN 53107	15	15
Transparency (%)	DIN 53147	60	42









CURIOUS.

June 2023

# **TRANSLUCENTS** Clear

Property & Unit	Standard							
GSM	EN ISO 536	80	90	100	110	150	210	320
Thickness (μm)	EN 20534	73	83	89	97	125	187	266
Bulk spec. (cm3 /g)	DIN 53105	0.85	0.85	0.85	0.85	0.8	0.79	0.77
Moisture (%)	EN 20287	7	7	7	7	7	7	7
Optical Whiteness (%)	DIN 53145-2	68.4	68.4	68.4	67.1	68.9	60.7	60.4
Smoothness Bekk (sec.)	DIN 53107	20	17	15	13	8	15	8
Transparency (%)	DIN 53147	76.7	74.9	73.3	72.3	67.5	58	45.8

# **Curious Translucents Clear is also ISEGA certified for <u>dry-food</u> <u>contact</u>**









