

DATA SHEET

STEINBEIS Trend White

january 2011

01. Product

STEINBEIS Trend White, multi-function paper

02. Application

copiers · printers (LED, Laser, Magnet, Ionen) · ink-jet printers · telefaxes · pre printing

03. Product make-up

Graphic recycled paper of 100% waste paper

- | | |
|---------------------------------------|--|
| <input type="checkbox"/> Raw material | postconsumer waste (newspapers, magazines) from household collections and offices according to regulations of the environmental label RAL-UZ 14 "Blue Angel" |
| <input type="checkbox"/> Fillers | Caolin and calcium carbonate |
| <input type="checkbox"/> Surface | Treated with starch |
| <input type="checkbox"/> Sizing | Non-acidic synthetic surface sizing system |
| <input type="checkbox"/> Additives | The additives used are free from organic chlorine compounds and do not lead to AOX formation |

04. Product description

The paper is available in natural white and in various sizes.

05. Environmental Labels

Germany ➤ Blue Angel · Scandinavia ➤ Nordic Environmental Label (Green Swan)

06. Aging properties

The paper possesses longevity. It fulfills the requirements of LDK 24-85 of DIN 6738 (lifespan classes). Paper in this aging classification may be called longevity, since it has an expected life which meets the highest requirements, if suitable care in handling and storage is guaranteed.

07. Dermatologically and toxicologically safe

Proofed by an independant laboratory, paper can be used without hesitation in regular application. Using this paper does not involve any hazards to the environment. The material used is conform to the XXXVI. recommendation issued by the "Federal institute for risk assessment" on paper-cartons and cardboard for the food industry. Under regular application , further investigations have shown that the paper is not injurious to health.

08. Certificate DIN EN ISO 9001

The TÜV CERT certification body of TÜV Nord confirms Steinbeis Papier GmbH has established and applies a quality system for "production and distribution of office and printing papers". Performed by an audit, proof has been furnished that the requirements according to DIN EN ISO 9001 are fulfilled.

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09. Certificate DIN EN ISO 14001

The TÜV CERT certification body of TÜV Nord confirms Steinbeis Papier GmbH has established and applies an environmental system for "production and distribution of office and printing papers". Performed by an audit, proof has been furnished that the requirements according to DIN EN ISO 14001 are fulfilled.

10. EMAS-Logo (Register-Nr. DE-S-140-00033)

The aim of the Eco-Management and Audit Scheme (EMAS) is to promote continuous environmental improvements. It is a voluntary scheme for organisations willing to commit themselves to evaluate and improve their environmental performance. Independently and externally validated, the environmental policy, environmental programme and environmental management system of Steinbeis Papier Glueckstadt GmbH & Co. KG fulfils the requirements of the EMAS. Steinbeis Temming Papier GmbH & Co is listed at the "Industrie und Handelskammer Kiel / Germany" (Registration No. DE-S-140-00033).

11. Migration of impurities

As requested by the standard DIN EN 12281, paragraph 7 the paper manufacturer has to state that the control of the production takes care about migration of certain impurities which will have negative impact on xerographic machines.

12. Vapours during thermal fixing process

Emissions caused by the heating adjustment of laser printers are essentially derived from offset printing inks remained in the recycling paper after deinking process. By newest deinking technology these printing inks and thus the emissions can be reduced to a minimum. Beyond that the choice of the used type of printer can affect the emissions clearly more than the paper. Investigations of the "Federal Institute for material research and testing" showed that the interior air quality of office space keeps the requirements of the AgBB evaluation pattern for building products when using workplace printers and appropriate printing volume.

13. Wrapping

The wrapping material is based on a non vapourification layer (Polyethylene). Due to the requirements of standard DIN EN 12281, paragraph 8.2, the manufacturer takes care about lowest contamination with impurities on the wrapping material.

14. Fire risk

Flammability and combustibility correspond with normal organic fibres. Use standard fire extinguishers to quench fires.

15. Disposal

The paper can be recycled, incinerated or disposed of. Even the packaging is environmental friendly. Ream wrapper, carton, wrapping band (PP) and shrink wrap (LDPE) can be incinerated or disposed of.

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16. Storage

Avoid storage under of extreme temperatures and atmospheric humidity. The multi-function paper should not be stored directly to heating, air conditioning system or exposed into the sun. Frost leads to damages of the sheet structure and functionality! Also, the multi-function paper properties are negatively effected by any source of heat and coldness.

Recommended Storage conditions

Room temperature: min: 10 °C to max. 30 °C
Relative atmospheric humidity: min: 20 % RH to max. 80 % RH

17. Processing information

The multi-function paper should be allowed to aclimatized 24 h prior to use in the processing room. It is advisable to open the wrapping right before use. Please avoid extreme temperature variation. Notice that multi-function paper is manufactured with lower absolute moisture content, relatibve humidity approx. 30 % RH.

Favourable conditions

Room temperature: min: 18 °C to max. 24 °C
Relative atmospheric humidity: min: 40 % RH to max. 60 % RH

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18. Regulations of DIN EN 12281

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Characteristic	DIN EN 12281	Test Methods	Remarks	Unit	Values
grammage	$\pm 4 \%$	DIN EN ISO 536	--	g/m ²	80 \pm 3,2
caliper	--	DIN EN 20534	--	μ m	101 \pm 6,0
moisture content	3,8 to 5,6	DIN EN 20287	--	%	4,2 \pm 0,4
brightness	--	ISO 2470	ISO brightness D65	%	80 \pm 2,5
whiteness	--	ISO 11475	CIE whiteness D65	--	85 \pm 2,5
opacity	> 85	ISO 2471	for duplex use	%	> 94
writing properties of paper by ink	--	DIN 53126	--	--	yes
pH - value	--	DIN 53124	--	--	> 7 (neutral)
surface strength	--	ISO 3783	to be used with medium viscosity oil and max. speed: 2,4 m/s	m/s	> 2,0
abrasion resistance	≤ 20 mg / 100 revolutions	DIN 53109	to be used with a 500 g weight	mg	≤ 20 mg
Coefficient of static friction	0,4 to 0,6	ISO 15359: 1999 passage 9.2 and 10.1		--	0,5 \pm 0,1
surface resistivity	10^8 to 10^{11}	DIN IEC 60093	to be used with 500 V on isolated base-electrode for 15 s	Ω	10^8 bis 10^{11}
toner adhesion	> 0,8	DIN EN 12283	--	--	> 0,8
cutting quality	95 % < 5 98 % < 6	DIN EN 12281 Annex C	--	--	95 % < 5 98 % < 6
curl before copy	MD: $\leq 2,00$ CD: $\leq 1,25$	ISO 14968	--	m ⁻¹	MD: $\leq 2,00$ CD: $\leq 1,25$
runnability	--	DIN EN 12281 Annex A	--	‰	is fulfilled
size	--	DIN EN ISO 20216	DIN - format	mm	A4: 210 x 297 / $\pm 2,0$ A3: 297 x 420 / $\pm 2,0$
machine direction	--	DIN EN 644	DIN - format	--	A4: long grain A3: short grain

STEINBEIS Trend White fulfills the requirements of **DIN EN 12281**