



**ITC PAPERBOARDS & SPECIALTY PAPERS DIVISION**



**UNIT BHADRACHALAM**

**PRODUCT SPECIFICATION SHEET**

Grade Name : SAFIRE GRAPHIK  
Grade Id : SG

Issued On : 01/06/2016  
Last Reviewed On : 05/11/2018

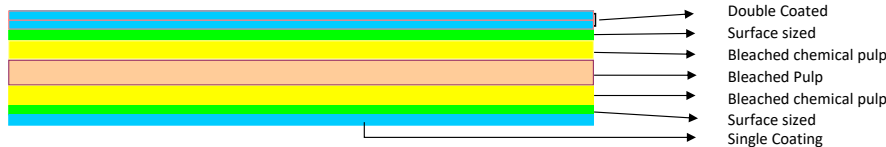
SUBSTANCE (GSM) (Avg) QS/TM/55 Tappi T 410	CALIPER (µM) (Avg) QS/TM/06 Tappi T 411	CALIPER (Pts)	BENDING RESISTANCE (L&W) mN			BENDING MOMENT (Taber 15°) mNm			TABER STIFFNESS (Taber 15°) gf.cm		
			QS/TM/33		Tappi T 556	QS/TM/33		Tappi T 489	Tappi T 489		
			MD	CD	GM	MD	CD	GM	MD	CD	GM
200	238	9.4	81	43	59	3.9	2.1	2.9	40	21	29
210	250	9.8	91	51	68	4.4	2.5	3.3	45	25	34
220	262	10.3	105	57	77	5.1	2.8	3.7	52	28	38
230	274	10.8	126	64	90	6.1	3.1	4.3	62	32	44
240	286	11.2	135	70	97	6.5	3.4	4.7	66	34	48
250	298	11.7	158	85	116	7.6	4.1	5.6	78	42	57
260	309	12.2	180	99	133	8.7	4.8	6.4	89	49	66
270	321	12.6	198	105	144	9.6	5.1	7.0	98	52	71
275	327	12.9	204	110	150	9.9	5.3	7.2	100	54	74
280	333	13.1	213	114	156	10.3	5.5	7.5	105	56	77
285	339	13.4	228	124	168	11.0	6.0	8.1	112	61	83
290	345	13.6	242	132	179	11.7	6.4	8.6	119	65	88
300	360	14.2	251	136	185	12.1	6.6	8.9	124	67	91
310	372	14.6	293	154	212	14.2	7.4	10.3	144	76	105
320	384	15.1	312	169	230	15.1	8.2	11.1	154	83	113
330	396	15.6	337	183	248	16.3	8.8	12.0	166	90	122
340	408	16.1	378	196	272	18.3	9.5	13.1	186	97	134
350	420	16.5	401	203	285	19.4	9.8	13.8	197	100	141
360	439	17.3	432	229	315	20.9	11.1	15.2	213	113	155
380	464	18.3	451	246	333	21.8	11.9	16.1	222	121	164
400	488	19.2	545	285	394	26.3	13.8	19.0	268	140	194
450	549	21.6	722	375	520	34.9	18.1	25.1	356	185	256
<b>TOL : ± 3%</b>	<b>± 5%</b>	<b>± 5%</b>				<b>-15%</b>		<b>-15%</b>			<b>-15%</b>

PARAMETER	UNITS	VALUE
PLY BOND (Avg.) QS/TM/40, Tappi T 569	J/m <sup>2</sup>	150 MIN
ROUGHNESS PPS (Avg.) 250 < GSM ≤ 340 GSM > 340	µm	2.3 MAX 2.5 MAX
TOP		
QS/TM/49, Tappi T 555		
BRIGHTNESS ISO	%	92 ± 2
TOP		
QS/TM/77, Tappi T 452		
WHITENESS CIE	%	85 MIN
TOP		
QS/TM/78, Tappi T 560		
DELTA - E		1.5 MAX
TOP		
QS/TM/79, Tappi T 527		
SURFACE STRENGTH IGT PICK (MED.VISCOSITY)	m/s	0.7 MIN
TOP		
QS/TM/31, ISO 3782 & 3783		
GLOSS AT 75° (Avg.)	%	35 MIN
TOP		
QS/TM/27, Tappi T 480		
MOISTURE	%	7.0 ± 1.0
GSM ≤ 300		8.0 ± 1.0
GSM > 300		
QS/TM/35, Tappi T 412		

MILL CERTIFICATIONS	
Manufacturing	ISO 9001: 2015, ISO 14001: 2015, BRC Global Standard, Issue-5
Environmental & Safety	FSC® CoC, Light ECF, CII GreenCo Platinum, OHSAS 18001: 2007
FOOD CONTACT COMPLIANCE	
USFDA	CFR 21 176.170 CFR 21 176.180
REACH SVHCs	Article 57, EC1907/2006, ECHA
ROHS/BfR XXXVI	EC1907/2006 EU2015/863 RoHS-EU/65/2011
CALIFORNIA PROPOSITION 65	NOT REQUIRED
AfPS German Standards	AfPS GS 2014.01 PAK
QUALITY INFORMATION & SERVICE LABORATORIES	
NABL Accrediated(Compliance to ISO 17025:2005)	

NOTE
1. All Properties are according to ITC PSPD Measurements
2. Test Climate 23°C ± 1 & 50% ± 2 RH
3. Tolerances are based upon 95% Confidence limits of single mill measurements of conditioned random samples

**CONSTRUCTION**



**KEY USAGE**

FMCG	CONSUMER ELECTRONICS	GARMENTS	PHARMA	PUBLISHING	DIGITAL	CULTURAL/ CARDS

Spec No : SG/SGH/PSPD/BCM/004

Format No: F/QISD/1

## Material Safety Data Sheet

**Product(s)** : Safire Graphik

**Specification Reference** : SG/CSG/PSPD/BCM/IV/003  
 SG/GEN/PSPD/BCM/IV/003  
 SG/SGC/PSPD/BCM/IV/003  
 SG/SGT/PSPD/BCM/IV/003  
 SG/SSC/PSPD/BCM/IV/003  
 SG/SSG/PSPD/BCM/IV/003  
 SG/GEN/PSPD/BCM/V/003

**MSDS Code** : MSDS/SG/ALL/PSPD/BCM/003

### 1. Product Identification

Product	Manufacturing Location	Manufacturer
Safire Graphik (SG,CSG,SGC,SGT,SSC,SSG)	Unit: Bhadrachalam	ITC Limited, Paperboards and Specialty papers Division

### 2. Major Ingredients/Identity Information

Name	CAS#	Percent	Compliance
Bleached Fiber (Cellulose)	9004-34-6	70 – 80	US FDA 176.170 Compliant
Rosin Size	None	0.5 – 1.0	21CFR 176.170(a)(5)
Talcum (Filler)	None	4 – 5	
<b><u>Coating pigments</u></b>			FDA under 21 CFR 176.170,176.180

Calcium Carbonate	1317 – 65 – 3	22 – 25	
Kaolin Clay	1332 – 58 – 7		
Starch	None	4 – 5	FDA 172.892
Retention Aid	None	0.5 – 1.0	FDA 21CFR176.170
Binders	None	1.0 – 2.0	21CFR 176.170
OBA	None	1.0 – 2.0	21CFR 176.180 & BGVV XXXVI

### 3. Hazard identification

#### **Appearance and Odor**

The product is a White, Pigment Coated paperboard, which may impart a characteristic paperboard odor.

#### **Primary Health Hazards**

No health hazards in Normal handling. As the board edges are sharp, chances of injury when moving web/Cut sheets are touched without precaution.

#### **Primary Route(s) of Exposure**

( ) Ingestion

( ) Skin

### 4. Emergency and First Aid procedures

#### **Ingestion**

Not applicable for product in purchased form.

#### **Eye Contact**

Not applicable for product in purchase form.

#### **Skin Contact**

Product is essentially non-irritating.

#### **Skin Absorption**

None

#### **Inhalation**

Not applicable for product in purchase form.

## 5. Fire and Explosion Data

### **Flash Point (Method Used)**

Not Applicable

### **Extinguishing Media**

Water, CO<sub>2</sub>, Dry Chemical.

### **Autoignition Temperature**

450 – 572°F (232 – 300°C)

### **Special Firefighting Procedures**

None

## 6. Accidental Release Measures

### **Steps to be Taken In Case Material Is Released or Spilled**

Not applicable for product in purchased form.

## 7. Handling and Storage

### **Precautions to be Taken In Handling and Storage**

Suitable material handling equipments only to be used.

Keep in cool, dry place away from open flame.

The moisture proof packing should not be removed till the point of usage.

## 8. Exposure Control Measures

### **Personal Protective Equipment**

#### **RESPIRATORY PROTECTION**

Not applicable for product in purchased form.

#### **PROTECTIVE GLOVES**

Not applicable for product in purchased form.

#### **EYE PROTECTION**

Not applicable for product in purchased form.

#### **PROTECTIVE CLOTHING OR EQUIPMENT**

Not applicable for product in purchased form.

## 9. Physical / Chemical Properties

<b>Boiling Point (@ 760 mm Hg)</b>	: NAP
<b>Vapor Pressure (mm Hg)</b>	: NAP
<b>Vapor Density (air = 1; 1 atm)</b>	: NAP
<b>Specific Gravity (H<sub>2</sub>O = 1)</b>	: 0.6 - 0.8
<b>Melting Point</b>	: NAP
<b>Evaporation Rate (Butyl acetate = 1)</b>	: NAP
<b>Solubility in Water</b>	: Insoluble
<b>pH</b>	: NAP

## 10. Stability and reactivity

Safire Graphik is a stable and inert material

## 11. Toxicological information.

Safire Graphik confirms as per US FDA 176.170 for contact with food products.

## 12. Ecological Information

Product is made with ECF pulp.

## 13. Disposal (Environmentally safe & Recycle Confirmation)

The product is recyclable.

### Waste Disposal Method

If disposed or discarded in purchased form, incineration or dry land disposal is acceptable. It is, however, the user's responsibility to determine at the time of disposal whether your product is having hazardous waste. Dispose in accordance with federal, state, and local regulations.

## 14. Transport Information

Not regulated as a hazardous material.

## 15. Regulatory information

Product should be tested for any compliance to the local regulations by the consumer before usage.

## 16. Other Information

### Product Stewardship

ITC limited (PSPD) is an ISO 14001 certified company has a fundamental concern for all who manufacture, distribute and use its product, and for the environment in which we live. This concern is the basis of our product stewardship philosophy by which we assess the health and environmental information on our products and take appropriate steps to protect employee and public health and our environment. Our product stewardship rest with each and every individual employed with ITC Limited from the concept and research, to manufacture, use, sale and disposal of each product.

### Additional Information

**Date Prepared** : 28<sup>th</sup> June 2006  
**Date Revised** : 1<sup>st</sup> November 2009  
**Version No** : 03  
**Revision No** : 00  
**Prepared By** : Product Development, ITC limited, PSPD

### User's Responsibility

The information contained in this Material Safety Data Sheet is based on the experience of occupational health and safety professionals and comes from sources believed to be accurate or otherwise technically correct. It is the user's responsibility to determine if this information is suitable for their applications and to follow safety precautions as may be necessary. The user has the responsibility to make sure that this sheet is the most up-to-date issue.