



EMAMI PAPER MILLS LIMITED
PAPER MACHINE - 1,2&3, UNIT:-BALASORE

SPECIFICATION SHEET FOR EMAMI SUPER FINE PAPER (SFS)

Grade Name :	Emami Pharmaprint Paper With OBA					SPEC NO : 01		
Grade Id :	SFS					Format No : 1		
Machine :	PMC # 3					Rev:-00		
PARAMETERS	STANDARD	UOM	VARIANTS					TOLERANCE
			SFS-30	SFS-38	SFS-40	SFS-45	SFS-50	
SUBSTANCE	Tappi T410	gsm	30	38	40	45	50	± 2.5%
CALIPER	Tappi T411	μ	41	46	48	56	45	± 3%
BULK	Tappi T411	cc/g	1.35	1.25	1.20	1.20	1.15	± 3%
BRIGHTNESS	ISO 2470	% ISO	88	90	90	90	90	Minimum
CIE WHITNESS	ISO 11476	% ISO	89	92	92	92	95	Minimum
OPACITY	ISO 2471	% ISO	60	70	70	70	72	Minimum
ROUGHNESS - BENDTSEN	ISO 8791 - 2	ml/min	150	150	150	150	150	Maximum
ROUGHNESS - BENDTSEN	ISO 8791 - 2	ml/min	100	100	100	100	100	Maximum
POROSITY	Tappi T547	ml/min	400	400	400	400	400	Maximum
TEAR INDEX(MD)	Tappi T414	mNm ² /g	4.0	4.0	4.0	4.0	4.0	Minimum
TEAR INDEX (CD)	Tappi T414	mNm ² /g	5.0	5.0	5.0	5.0	5.0	Minimum
BREAKING LENGTH (MD)	Tappi T494	meters	7000	7000	7000	7000	6800	Minimum
BREAKING LENGTH (CD)	Tappi T494	meters	2000	2000	2000	2000	1900	Minimum
COBB SIZING (60 Secs)	Tappi T441	gsm	30	30	30	30	30	Maximum
L	ISO 2470	-	95.0	95.0	95.0	95.0	95.0	± 1
a	ISO 2470	-	-1.0	-1.0	-1.0	-1.0	-1.0	± 0.5
b	ISO 2470	-	-1.0	-1.0	-1.0	-1.0	-1.0	± 0.5
MOISTURE	Tappi T412	%	5.0	5.0	5.0	5.0	5.0	± 0.5

Note :

- 1) All Properties are according to Standard method.
- 2) Samples are tested at Test Climate 27°C ± 1 & 65% ± 2 RH
- 3) Tolerances are based upon 95% Confidence limits of single mill measurements of conditioned random samples

PM 1,2,3 Quality Assurance

SPECIFICATION SHEET FOR EMAMI SUPER FINE PAPER

Grade Name :	Emami Super Fine (Bluish Shade)					SPEC NO : 1
Grade Id :	SFB					Format No : 1
Machine :	PMC # 3					Rev:-00
PARAMETERS	STANDARD	UOM	VARIANTS			TOLERANCE
SUBSTANCE	Tappi T410	gsm	35	38	40	± 1.0%
CALIPER	Tappi T411	μ	44	48	50	± 2.0%
BULK	Tappi T411	cc/g	1.25	1.25	1.25	Max.
BRIGHTNESS	ISO 2470	% ISO	89	90	90	Min.
OPACITY	ISO 2471	% ISO	82	82	82	Min.
CIE WHITNESS	ISO 11476	% ISO	125	125	125	Min.
ROUGHNESS - BENDTSEN TS	ISO 8791 - 2	ml/min	150	150	150	Max.
ROUGHNESS - BENDTSEN WS	ISO 8791 - 2	ml/min	100	100	100	Max.
POROSITY	Tappi T547	ml/min	350	300	300	Max.
TEAR INDEX, MD	Tappi T414	mNm ² /g	4.0	4.0	4.0	Min.
TEAR INDEX, CD	Tappi T415	mNm ² /g	5.0	5.0	5.0	Min.
BREAKING LENGTH (MD)	Tappi T494	meters	6000	6000	6000	Min.
BREAKING LENGTH (CD)	Tappi T494	meters	2000	2000	2000	Min.
WAX PICK TS/WS	Tappi T458	No.	14A	14A	14A	Min.
COBB SIZING (60 Secs)	Tappi T441	gsm	25	25	25	Max.
MOISTURE	Tappi T412	%	5.0	5.0	5.0	± 0.5
Fluor - C	ISO 2470	-	6.5	6.5	6.5	± 0.5
L*	ISO 2470	-	89.0	89.0	89.0	± 1.0
a*	ISO 2470	-	6.0	6.0	6.0	± 0.5
b*	ISO 2470	-	-12.0	-12.0	-12.0	± 0.5

Note :

- 1.) All Properties are according to Standard method.
- 2.) Samples are tested at Test Climate 27°C ± 1 & 65% ± 2 RH
- 3.) Tolerances are based upon 95% Confidence limits of single mill measurements of conditioned random samples

PM # 1, 2, & 3 Quality Assurance