



Garnfabrik
Embroidery thread Specification Sheet
 to DIN and Marks & Spencer Standards

August 2002

Type of thread	FS No. 15
Article Description	Metallic Embroidery Thread
Composition	60% polyester 40% metallised polyesterfoil
Harmonised Tariff Number	560500000
Count	660 dtex 590 den ca. 15.150 m / kg
Make Up Available	20 g spool 100 g cone





Fastness Rating – Scale 1 (worst) – 5 (best)

Fastness to washing at 60°C	DIN 54011 / M & S C4A	4-5
Fastness to water (damp for 4hrs at 37°C)	DIN 54006 / M & S C6	4-5
Fastness to rubbing dry (10 rubs on dry white Fabric)	DIN 54021 / M & S C 8	4
Fastness to rubbing wet (10 rubs on wet white Fabric)	DIN 54021 / M & S C 8	3-4
Fastness to dry cleaning	DIN 54024	4-5

Fastness Rating - Scale 1 (worst) – 8 (best)

Fastness to light (100hrs xenon light)	DIN EN ISO 105-B02	6-7 Due to different dye stuffs not applicable to all colors.
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Mechanical-Technological Values

Tensile Strength cN (force until thread breaks, in CentiNewton)	DIN 53834	2500
Elongation (% of stretch extension with weight tension until breaks)	DIN 53834	16-18
Recommendations for care	   	
Color Card No.	58	

All Madeira's threads meet or exceed Marks & Spencer Standards.



dtex = decitex = weight in grammes of 10,000m of yarn
 den = denier = weight in grammes of 9,000m of yarn
 1 CentiNewton = slightly more than 1 gram
 dtex x 2 = two plies of yarn
 den x 2 = two plies of yarn
 1 denier = 1.1111 decitex