Useful print and general formulae

"So, you want to work out…"

1. Conversion of paper weight to show tonnage requirement differential:
i.e. 200t 60gsm equals the same amount of copies as 189.99t on 57gsm
e.g. 200 ÷ 60gsm x 57gsm = 189.99t

2. Tonnage (in KG's) requirements for Web Offset and Gravure printing:
i.e. How much paper you'll need to produce 100k 128pp A4 catalogue/magazine etc.
e.g. Quantity (i.e. 100,000 cps) + % running waste (ie. 10%) + amount of copies start-up (ie. 5,000 cps) = No. Impressions (ie. 115,000) x No. Sections (ie. 4 x 32pp sections) x cut- off [÷1,000] (ie. 1.26m) x reel-width [÷1,000] (ie. 8.87m) x weight of paper [÷1,000] (ie.0.070gsm) = 35,297.64kgs/35.3t

3. Weight per copy/sheet:
i.e. How heavy each 128pp A4 catalogue/magazine weighs.
e.g. Height [÷1,000] (ie. 0.297) x width [÷1,000] (ie. 0210) x no. leaves 9ie. 64) + allow approx. 5% for ink/ stitches etc = 251.47gsm per copy

4. Number of sheets per job:
i.e. How many sheets you'd need to produce 40,000 A4 covers on 130gsm paper.
e.g. Total Run ÷ Quantity up on the sheet (4 normally for A4 covers on B2) + 8% waste + 1200 (600 per side work/turn) = 12,000 sheets

5. Equivalent sheet tonnage required:
i.e. How many tonnes 12,000 sheets equate to:
e.g. Number of sheets (ie. 12,000) x sheet width [÷1,000] (ie. 1.02m) x sheet depth [÷1,000] (ie.0.72m) x paper weight [÷1,000] (ie. 0.130gsm) = 1,145.66kg/1.15t

6. Sheet price converted into value per tonne:
i.e. How much £68.74 per 1,000 sheets equate to in 'price per tonne' format:
e.g. 1,000 ÷ kg per 1,000 sheets (ie. 95.4kg – see 3) x price per 1,000 sheets 9IE. £68.74) = £720

7. Tonnage price converted into sheet value per 1,000:
i.e. How much £720 per tonne equates to in 'price per 1,000 sheets

If any of the above seems a little confusing please don't hesitate to call us on 0844 880 6790.
We'll do our best to help wherever we can…

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