

Reinforcing part 2: codes

At the end of last month's article about reinforcement, I promised to answer the question: "what exactly do all those code numbers mean when engineers talk about reinforcing mesh?"

The suspense must be killing you, so here goes...

Reinforcing mesh

The letter of the code relates to the shape of the mesh, so:

- A = 200mm x 200mm holes
- B = 100mm x 200mm holes
- C = 100mm x 400mm holes
- D is for wrapping around columns

The number is the area of steel per metre if you look at it end on.

When you design a structure this is the value that you come out with for the amount of steel you want, and you then have to convert it to actual numbers of real bars. Mesh is handy because it just looks at the area of steel and does it all for you.

So for example, a mesh using 10mm diameter bars:

Area of steel per bar is $\pi \times (r, \text{ squared})$.
i.e $A = 3.14 \times (10/2 \times 10/2)$
 $A = 78.5 \text{ mm}^2$

If we are using 'A' mesh, the bars are spaced at 200mm centres. So there will be 5 bars per metre ($1 / 0.2$). Therefore the area of steel per metre is $5 \times 78.5 = 393$ (the magic number)

Concreting

Another thrilling instalment of MKP's reinforcing guide

So - a mesh using 200mm squares and T10 bars is A393. (for 12mm bars it would be A565 and so on)

Bars:

The straight versus ribbed thing...

Bars are also given codes with a letter then a number. This is easier. The number is the diameter of the bar in mm, usually 6, 8, 10, 12, 16, 20, 24, 36 (bloody big), and the letter relates to the rolling method of the bar.

- T = ribbed
- R = straight
- Y = old!

I've always used Ts, I think Rs are being left out of new codes.

So, a T10 is a ribbed bar, 10mm diameter.

Did you know that each rolling yard stamps a series of braille blips on each bar so you can tell where it came from? You didn't? Where have you been?

Mike Palmer



Martin Ludgate

Assembling the reinforcing mesh for the final section of the base of the new Wey & Arun lock