**Lecture 8 : Plain Weave**

**(Matt Weave)**

**Features of Matt weave:**

* Matt weave is constructed by extending the plain weave both warp and weft / vertically or horizontally.
* Combination of warp and weft Rib.
* It is heavier than a square fabric made from the same yarn but thickness will be same.
* Greater resistance to tearing.
* Loose structure.
* Matt weaves tend to give smooth surfaced fabrics and more flexible fabrics and more flexible fabrics than plain weave.

Regular Matt:

* May be same count yarn and No of warp yarn = No of weft yarn.
* Combination of regular warp rib and Regular weft Rib.
* Formula number = matt. [x = no of warp and weft yarn.]

Irregular matt:

* In same repeat, the no of warp and weft is different.
* Combination of irregular warp rib and weft rib.
* Formula no = matt. [x = no of warp; Y = no of weft yarn.]

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|  |  |  |  |  | x | x | x | x |  |  |  |  |  |  |  |  | x | x | x |  |
|  |  |  |  |  | x | x | x | x |  |  |  |  |  |  |  |  | x | x | x |  |
|  |  |  |  |  | x | x | x | x |  |  |  |  |  |  |  |  | x | x | x |  |
|  |  |  |  |  | x | x | x | x |  |  |  | X | x | x | x | x |  |  |  |  |
|  | x | x | x | x |  |  |  |  |  |  |  | X | x | x | x | x |  |  |  |  |
|  | x | x | x | x |  |  |  |  |  |  |  | X | x | x | x | x |  |  |  |  |
|  | x | x | x | x |  |  |  |  |  |  |  | X | x | x | x | x |  |  |  |  |
|  | x | x | x | x |  |  |  |  |  |  |  | X | x | x | x | x |  |  |  |  |
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|  | 4 |  | (4) | |  |  |  |  |  |  |  | 5 |  | (5+3) | | | | | |  |
|  |  | 4 |  |  |  |  |  |  |  |  | 3 |  |
|  |  |  |  | Regular Matt | | | | |  |  |  |  |  | Irregular Matt | | | | | |  |
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Stitched matt:

* Stitch is used in matt.
* To avoid looseness of the yarns in the fabric.  
  stitch is used i.e. to produce firm cloth, stitch used,
* In warp face, the centered warp thread is lowered and in weft face, the centre weft thread is up .

Example: 

Fancy matt:

* Any rearranging except stitching of matt is called fancy matt.
* It is produced by combining matt and warp and weft rib.

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|  |  |  |  |  |  |  | x | x | x | x | x | x |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
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|  |  |  | x | x |  |  | x | x |  |  | x | x |  |  |  |  |  |  | x | x |  |  |  |  | x |  |
|  |  |  | x | x |  |  | x | x |  |  | x | x |  |  |  | x | x | x |  |  | x | x | x | x |  |  |
|  |  |  |  |  |  |  | x | x | x | x | x | x |  |  |  | x | x | x |  |  | x | x | x | x |  |  |
|  |  |  |  |  |  |  | x | x | x | x | x | x |  |  |  | x | x | x |  |  | x | x | x | x |  |  |
|  | x | x | x | x | x | x |  |  |  |  |  |  |  |  |  | x | x | x |  |  | x | x | x | x |  |  |
|  | x | x | x | x | x | x |  |  |  |  |  |  |  |  |  |  |  |  | x | x |  |  |  |  | x |  |
|  | x | x |  |  | x | x |  |  | x | x |  |  |  |  |  |  |  |  | x | x |  |  |  |  | x |  |
|  | x | x |  |  | x | x |  |  | x | x |  |  |  |  |  | x | x | x |  |  | x | x | x | x |  |  |
|  | x | x | x | x | x | x |  |  |  |  |  |  |  |  |  | x | x | x |  |  | x | x | x | x |  |  |
|  | x | x | x | x | x | x |  |  |  |  |  |  |  |  |  | x | x | x |  |  | x | x | x | x |  |  |
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|  |  | 6 |  | (6) Stitched Matt | | | | | | | | |  |  |  | 3 |  | 4 |  | (3+2+4+1) | | | | | |  |
|  |  |  | 6 |  |  |  |  | 2 |  | 1 |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | Fancy Matt | | | | |  |  |