



## PIONEER DENIM LIMITED

Madhabpur, Habiganj, Bangladesh

### Yarn consumption formula KG/Yards

$$\text{Warp} = \frac{\text{Total ends X Warp Ratio}}{840 \times 2.2046 \times \text{Count X Total Ratio}} \times (\text{Crimp \%} + \text{Shrinkage \%} + \text{Rejection 3\%})$$

$$\text{Weft (Airjet)} = \frac{(\text{Read Space} + 3 \text{ inch}) \times \text{Greige PPI} \times \text{Weft Ratio}}{840 \times 2.2046 \times \text{Count X Total Ratio}} \times (\text{Shrinkage \%} + \text{Rejection 3\%})$$

$$\text{Weft (Rapier)} = \frac{(\text{Read Space} + 6 \text{ inch}) \times \text{Greige PPI} \times \text{Weft Ratio}}{840 \times 2.2046 \times \text{Count X Total Ratio}} \times (\text{Shrinkage \%} + \text{Rejection 3\%})$$

#### For Example:

Greige construction : 7rsl X 6oe / 66X39  
 Finish construction : 7rsl X 6oe / 70X44  
 Total Ends : 4942  
 Read Space : 74.88  
 Warp Ratio : 100%  
 Weft Ratio : 100%  
 Crimp% : 12%  
 Shrinkage% : {(Finish PPI - Greige PPI) / Finish PPI} X 100  
 : {(44-39)/44}\*100 = 11.3636

#### Yarn consumption Kg/Yds:

$$\text{Warp} = \frac{4942 \times 100}{840 \times 2.2046 \times 7 \times 100} \times (3\% + 12\% + 13.64\% + 5\%)$$

= 0.3812

Hard Waste	Crimp	Shrinkage	Rejection	Remarks
0.3812	0.4332	0.4888	0.5039	Crimp 12% + Shrinkage 11.364% + Rejection 3%

  

$$\text{Weft (Airjet)} = \frac{(\text{Read Space} + 3 \text{ inch}) \times \text{Greige PPI}}{840 \times 2.2046 \times \text{Count}} \times (\text{Shrinkage \%} + \text{Rejection 3\%})$$

$$\frac{(74.88+3) \times 39 \times 100}{840 \times 2.2046 \times 6 \times 100} \times (\text{Shrinkage \%} + 3\%)$$

= 0.2734

	Shrinkage	Rejection	Remarks
0.2734	0.3084	0.3179	Shrinkage 11.364% + Rejection 3%

  

$$\text{Weft (Rapier)} = \frac{(\text{Read Space} + 6 \text{ inch}) \times \text{Greige PPI}}{840 \times 2.2046 \times \text{Count}} \times (\text{Shrinkage \%} + \text{Rejection 3\%})$$

$$\frac{(74.88+6) \times 39 \times 100}{840 \times 2.2046 \times 6 \times 100} \times (\text{Shrinkage \%} + 3\%)$$

= 0.2839

	Shrinkage	Rejection	Remarks
0.2839	0.3203	0.3302	Shrinkage 11.364% + Rejection 3%

Note: Each Article Shrinkage% & Crimp% is different or Actual test data.