## FAQ : Moisture Textiles

4. Calculate the Moisture Regain and Moisture Content of Cotton / Viscose Blend which is having 60% cotton and 40% Viscose in proportion. (Assume necessary details)

**Answer:**

Assumptions

Moisture Regain for Cotton - 8.5%

Moisture Regain for Viscose - 13%

Moisture regain % of Mixture = (8.5 * 60 + 13 * 40) / (60 + 40)

= 10.3%

Moisture content % = MR / (1+MR/100)

= 10.3 / (1+0.103)

= 9.34%

5. 20 tons of 40s Ne 80/20 P/C yarn @ 4% moisture content is shipped. What will be the correct invoice weight? [The official moisture regains of polyester and cotton is 0.4% and 8.5% respectively].

Answer:

20,000 Kg = W + D

Rb = 8.2 * 0.2 + 0.4 * 0.8

= 2.02%

Moisture Content = 4 = [W/ (W+D)]*100

4 = [W / 20,000]*100

W = 4 * 200 = 800 kg

Dry Mass of Yarn = 20,000 – 800 = 19200 kg

Total water allowed $W_I$

2.02 = ($W_I$ / 19200) * 100

$W_I$ = 387.84

Total Invoice Weight = 19200 + 387.84 = 19587.84 kg