

Benchmark in Vietnam

Wet processing

Products	Dye stuff, kg/ton		Chemicals, kg/ton		Water, m3/ton		FO, litre/ton		Electric, kwh/ton	
	from	to	from	to	from	to	from	to	from	to
Overall	3,25	110	63	1776	80	450	610	2503	590	2315
Woven	21	51	116	464	90	340	1552	2330	590	1284
100% cotton	26	51	234	464	176	340,0	2120,0	2330,0	590	730
Co/Pe	27	35	159	198	90	300,0	1552,0	1981,0	1044	1284
100%Pe	21	27	116	154	242	264,0				
Knitted	3,25	110	63	1522	80	450	610	1870	720	2315
100% cotton	3,25	90	224	1490	168	450	1200	1500	840	2315
Light shade	3,25	4,4	224	589	168		1200,0	1332,0	840	988
Medium shade	15,6	25,4	728	844,2	168	450,0	1350,0	1500,0	2088	2315
Dark shade	82	90	1270	1490						
100% T/C	4,41	80	176	1522	230	0	1770	1870	1230	1549
Light shade	4,41	6	176	548,6	230		1770,0	1870,0	1230	1549
Medium shade	18,3	19,21	880	977						
Dark shade	75	80	1370	1522						
100% Petex	3,8	50	63	124,2	80	0	610	690	720	780
Light shade	3,8	7	63	74	80		610,0	690,0	720	780
Medium shade	11	12	82,8	92						
Dark shade	45	50	120	124,2						
Cotton/Petex	5,1	110	190	1200	230	0	1770	1870	1250	1549
Light shade	5,1	6	190	550	230		1770,0	1870,0	1250	1549
Medium shade	19	20,4	879	980						
Dark shade	100	110	1080	1200						
Towels			398	405,2	130	300,0				
Yarn (100% cotton)	9,6	62	140	1776	120	380	1590	2503	2249	2275
White shade	-	-	140	180	120	135,0	1590,0	1620,0	2249	2275
Light shade	9,6	15,4	815	1203	300	335,0	2419,0	2452,0	-	-
Medium shade	-	-	-	-	-	-	-	-	-	-
Dark shade	38	62	1206	1776	340	380,0	2419,0	2503,0	-	-

Dye stuffs:

Dyestuffs are used for dyeing process. Depending on types of dyes, the exhausted rate can be from 60-90%

Chemicals

All types of chemicals as basic chemicals, auxiliaries, salts, finishing agents, to be used from the first step (desizing) to last (finishing) in wet processing

Water

Water is used for all process steps in wet processing, such as de-sizing, scouring, bleaching, dyeing, rinsing

Fuel oil/coal

Steam will be used for desizing, scouring, bleaching, dyeing process

Steam to provide to wet processing is produced through boilers by coal or fuel oil.

In finishing, heating can be used with Diesel oil or LPG

Average heating value:

1 kg coal =	22MJ
1 kg FO =	40 MJ
1kg DO =	42 MJ
1kg LPG =	45 MJ

Electric

Electric is used in running machine and lighting

