

# Hemp

Hemp fiber is extracted by maceration of the shrub (*Cannabis sativa*) belongs to the family of Cannabinaceae. It has the right rod tube that can reach a height of 5 m. Hemp is dioecious, that male and female plants present, the former are thin and slender and only give the fiber, the second

are more developed and damage the fiber or seed. It has a high percentage of cellulose more lignified compared to linen. It consists of long filaments from 30 to 70 cm. consisting of strips of bast fibers from 15 to 50 mm long. With a diameter between 15 and 35 microns. The color of the raw fiber ranges from ivory white to beige, slightly glossy. Contains 70% cellulose (degree of polymerization around 2200), 14% hemicellulose, lignin, 4%, the rest of fats and waxes, soluble substances and moisture. Hemp has been combed freed from the dross, and owns 80% of cellulose. And 'end, shiny, silky-looking, soft. Hemp is cultivated in temperate countries, until a few years ago the cultivation flourished in Italy with the finest quality that had little to envy to linen, and today this crop has been virtually abandoned. 40 41 The cultivation is rather expensive, requiring soft and well-fertilized soil. Sowing is done in spring and harvesting is done in a manner similar to linen. With regard to the yield from 100 kg. drums are obtained on average 26 kg. of raw lint that after the first operations are reduced to 15-18 kg. The rest is represented by the shives (woody bark) that are used to extract the cellulose to produce artificial fibers. Such as flax, hemp is classified according to the source: one of the best hemp we have Chinese, Russian and Egyptian. With hemp fiber yarns can be obtained less subtle than those of flax, but high strength and suitable for any use, not very fine paintings, textiles, clothing and furniture, linens, towels, cordage, ropes etc.. It 'a fiber rather rigid and inelastic, giving squalcibili tissues easily. It has good thermal conductivity, it absorbs and retains much moisture. The waste is used for the manufacture of fine paper. Hemp can finally be subjected to special chemical treatments (alkaline baths) to obtain short and thin fibers similar to those of cotton and processed with the same machines used for the latter. The process is called cottonizzazione hemp and flakes obtained are called "cafio" cottonizzata or hemp.