47.01 - Mechanical wood pulp.

Mechanical wood pulp is obtained solely by a mechanical process i.e., by disintegrating or grinding wood, freed of its bark and sometimes of its knots, into its fibres by mechanical milling under a flow of water.

Milling without prior steam treating produces the so-called " white " mechanical wood pulp in which the fibres are broken and weakened. The wood may be steam treated before grinding, producing stronger fibres of brown colour (brown mechanical wood pulp).

Further development from the traditional grinding methods is the pulp referred to as refiner mechanical pulp where wood chips are shredded in a disc refiner by passing the chips between two closely spaced ridged plates, one or both of which may be rotating. One of the superior grades of this type of pulp is produced by refining wood chips after they have received preliminary heat treatment to soften them and allow an easier separation of the fibres with less fibre damage. The resultant pulp quality is superior to the traditional mechanical wood pulp.

Thus the main types of mechanical wood pulp are :

Stone groundwood (SGW) produced from roundwood or blocks in stone grinders at atmospheric pressure.

Pressurised stone groundwood (PGW) produced from roundwood or blocks in pressurised stone grinders.

Refiner mechanical pulp (RMP) produced from wood chips or wafers in refiners discharging at atmospheric pressure.

Thermo-mechanical pulp (TMP) produced from wood chips or wafers in refiners after high-pressure steaming of the wood.

It should be noted that some pulps produced in refiners may be chemically treated. Such pulps fall in **heading 47.05**.

Mechanical wood pulp is not generally used alone because the fibres are relatively short and would produce weak products. In paper-making it is more often mixed with chemical pulp. Newsprint is generally made from such a mixture (see Note 4 to Chapter 48).