TYPES OF TILES

PRESSED OR EXTRUDED
Ceramic tiles can be formed either by pressing or extrusion. Pressed tiles are obtained from a paste that is compacted and formed by a high pressure press. Extruded tiles are formed by passing the raw materials in the form of a paste through a special tube forming a strip of clay which is then cut into tiles.

GLAZED OR UNGLAZED
Glazed tiles have a surface that is covered by a coloured layer of glaze. This gives them important design characteristics (such as colour, shininess, decoration, shades of colour etc.) and technical characteristics (such as hardness, impermeability to water etc.). All these characteristics, both technical and aesthetic, depend on the type of glaze and may vary greatly. Unglazed tiles, on the other hand, are perfectly uniform both in surface and in thickness, and normally have no decoration or patterns.

RED OR WHITE BODY
Depending on the raw materials used, the body of the tiles can be coloured (any colour shade from yellow to reddish brown) or else they can be whitish (sometimes white). In glazed tiles, the colour of the body is relatively unimportant. For certain unglazed tiles, different colours can be obtained by adding colouring pigments.

WITH A VITRIFIED OR POROUS BODY
The body of a tile may be Vitrified (Impervious), otherwise it may contain ‘pores’ that are linked to another in various ways. An extremely powerful microscope would be required to see this characteristic of the body. In order to measure porosity, the quantity of water that is absorbed in given conditions is measured. In other words, water absorption is measured. The higher the water absorption, the more Porous the body, whilst compact Vitrified structures have a low water absorption.

BI-COTTURA (DOUBLE FIRED)
These tiles have been fired twice (at temperatures around 700 degrees C), usually firing the body first, then applying the glaze and marrying the two layers with a second firing. They usually have porous bodies and are suitable mainly for wall tiling.

MONOCOTTURA (SINGLE FIRED)
Tiles that have been fired once at a higher temperature (around 1200 degrees C) than bi-cottura thereby creating a stronger tile which is more suitable for floor tiling, but can also be used for wall tiling.

GLAZED PORCELAIN
These are tiles that have been fired and glazed (the same as normal monocottura tiles) but have a superior vitrified porcelain base.
Their advantage over a glazed monocottura tile is that the glaze characteristics are usually stronger due to the higher temperature firing that can be used because of the porcelain base. This usually results in a stronger bond between the glaze and the bisque equating to a stronger impact resistance.

UNGLAZED PORCELAIN (VITRIFIED TILES)
Extremely dense tiles that commonly have a speckled appearance throughout the tile. Are extremely hard wearing and usually used in commercial floor tile applications (shopping centers and foyers of commercial buildings). Are fired at temperatures of up to 1350 degrees centigrade.

POLISHED PORCELAIN
Polished Porcelain is unglazed porcelain that is highly polished. Usually comes with beveled (arrised) edges and rectified edges providing uniformity of size allowing for close jointing to create a complete imitation of natural stone (marble).
Can be used on both walls and floors.
Requires an extremely flat substrate to prevent edges or corners ‘kicking up’

RECTIFIED TILES
Tiles that have their edges cut by a diamond cutter or water jet cutter to produce ‘rectified’ edges calibrated to a precise size. The intention is for the tiles to be close jointed providing the customer with the look and appearance of natural stone or marble at a lower price.
In many cases the edges of the tile are shaved (arrised edges) to prevent damage to the edges.
Can be used on walls & floors.

QUARRY TILES (EXTRUDED TILES)
Quarry Tiles are manufactured by pushing clay under pressure through an extrusion.
Due to this manufacturing process, these tiles commonly are thicker and less exact in size than normal (dust pressed) tiles thereby requiring larger grout joints when installed.
Extruded tiles are ideally suited to outdoor floor application.

MOSAIC TILES (GLAZED, UNGLAZED & GLASS)
Mosaic Tiles are small square tiles that are mounted on sheets rather than packed individually. They usually have a mesh backing or a specialized paper facing which assists in laying process. These tiles require a thin mortar bed and special techniques to be laid successfully.