iii. Aggregates can be used as per the manufacturing techniques applied, however ensure no aggregate becomes embedded in the internal resin rich liner layer.

- Outer layer

i. Pipes shall be provided with an external vinyl ester resin rich layer, with C- glass Veil.

ii. The resin used in the outer layer will be Vinyl ester and in accordance to BS/DIN EN 14364 shall have a Glass Transition temperature of at least 75 °C. In addition a sample shall be tested for HDT in accordance with Method A of DIN EN ISO 75 - 2.

iii. The use of special constructions is permitted when the pipe is expected to be exposed to extreme climatic, environmental or ground conditions, for example provision for the inclusion of pigments or inhibitors for extreme climatic conditions or fire retardation, upon the approval of the Engineer.

e) Wall thickness

i. The minimum total wall thickness, including the liner shall be declared by the manufacturer.

ii. Use pipes with wall thickness that achieve a minimum hoop flexural modulus of 15.0 GN/m^2 over the whole pipe wall thickness for pipes of 350mm diameter and above, and 12.0 GN/m^2 for pipes of less than 350mm diameter. This shall be demonstrated by the application of the equation $S = (EI)/D^3$ to show that the hoop flexural modulus of a pipe is not less than the required minimum figure where S is the stiffness of the manufactured pipe, D is the mean diameter of the manufactured pipe, E the required hoop flexural modulus and "I "being given by $t^3/12$ where t is the whole wall thickness of the manufactured pipe.

f) Fittings

i. Fittings shall be manufactured similar to the pipe construction or better thereof as per the existing worldwide standard manufacturing techniques, complying with applicable standards on performance and testing.