

- Fillers (other than sand aggregates) shall be permitted in accordance to BS/DIN/ EN 14364, provided the necessity is scientifically tested, justified and approved by the Engineer on all accounts of performance, including Qualifying Tests using Long Term type tests, at minimum a of 10,000 hrs.

Note: Filled pipes and fittings shall only be allowed on a project once the satisfactory Long Term test results are in hand & all conditions as stipulated above are met in advance.

d) Wall construction

- Liner layer
 - i. All pipes and fittings shall have a resin rich liner having an approximate thickness of 2.5 mm comprising an innermost layer (i.e., that in contact with the liquid) of approximately 1.0mm to 1.5mm in thickness incorporating two layers of "C" glass. The remainder of the liner construction shall consist of at least two layers of 450 g/m² power bound "E" glass chopped strand mat having a glass content between 25 percent and 35 percent by weight or the equivalent of chopped strand "E" glass depending on the method of manufacture. No chopped strands or sand are allowed in the inner face layer of the resin rich liner.
 - ii. The resin used in this inner liner layer must conform to requirements given in BS/ DIN EN 14364 and to stipulation of section "a" as above.
 - iii. Resins shall be cured to achieve 90% of the manufacturer's recommended Barcol hardness value.
- Structural layer
 - i. Build up the structural layers by acid resistant glass chop roving or continuous roving with a glass content of between 25% and 35% by weight.
 - ii. The structural layer shall consist of glass reinforcement and a thermosetting isopthalic polyester resin with or without sand aggregates.