

External Coating Process Flowchart

1. The entrance control of pipes.
Visual inspection



2. Preliminary heating in the gas furnace



3. Abrasive cleaning of external pipes surface in a shotblast unit by steel chipped fraction



4. Removal of dust from pipes internal cavity by a purge



5. Visual inspection of pipe



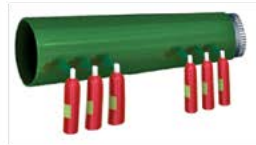
6. Having heated pipes



7. Having heated pipes



8. One- and two-layer FBE coating
a) Epoxy powder paint coating
b) Epoxy impact-resistant coating
(only in case of a two-layer coating)



9. Three-layer PE and polypropylene coating
a) Epoxy primer coating
b) Adhesive coating
c) Polyethylene (or polypropylene) coating



10. Water cooling of coated pipes



11. Uniformity coating inspection with high-voltage flaw detector



12. Coating removal from pipe ends



13. Final quality inspection of coated pipes (visual)



14. Pipe marking and Pipe storage



Internal Coating Process Flowchart

1. Pipe storage before pipe delivery



2. Pipe incoming control



3. Pipe heating



4. Internal pipe surface degreasing



5. Second heating of pipes



6. Internal pipe surface blast cleaning in Shot Blaster 1



7. Blaster internal surface quality examination



8. Internal pipe surface blast cleaning in Shot Blaster 2



9. Internal surface blowout



10. Internal surface preparation quality inspection



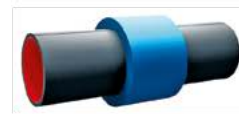
11. Coating application on pipes (in coating chamber)



12. Internal coating pre-curing



13. Pipe induction heating



14. Pipe coating curing in the full-polymerization chamber



15. Internal flow coating quality inspection



15. Marking of coated pipes. Stacking of pipes provided tarpaulin protective caps

