Chapter 4
Composite Insulator Manufacturing Process

4.1 Composite Insulator Production Flow Chart
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Composite polymer insulator processing flow chart

Raw material preparing:

End fittings of insulators:
- Casting or forging process
- Hot dip galvanized
- Gauge inspection

Silicone rubber mixing:
- Raw material mixing process
- Air exhausting by rolling compression
- Silicone rubber tensile strength testing
- Production used silicone rubber

Reinforced fiber glass rod:
- Rod extrusion of different size
- Testing
- Rod cutting and abrasion
- Rod cleaning and drying

Composite insulator production procedure:
- Assembly of end fittings with reinforced fiber glass rod
- Brush coupling agent on the rod
- Warming up under high temperature
- Compression molding or injection molding of vulcanization
- Crimping of fittings to the rod
- Surface trimming

Inspection and tests process of insulators according to IEC or ANSI standard for composite insulators:
- Routine test
- Sample test