

700

EPOXY COATING PROCESS BUTTERFLY VALVE SERIES 700

Scope of Application

This specification gives general requirements of fusion bounded epoxy coating for cast iron and ductile iron rubber lined butterfly valves. This coating process is applied to the valve bodies after machining, but before assembly.

Epoxy Coating Process

Surface Preparation

All sharp edges and corners, grease, oil and other surface debris will be removed before the shot blasting is applied.

Preheating

The valve bodies are inserted in the oven and heated up to 410°F. The heating time depends on the quantities and wall thickness of bodies put into the oven.

During the heating operation, the temperature must be monitored and changes to temperature will be recorded. If necessary, the temperature-controlling instrument will be adjusted to ensure the suitable temperature at all times.

Coating

Valve bodies are removed from the oven once 410°F has been reached and hung on the painting system. The epoxy powder must be applied immediately. The epoxy powder gradually fuses to form a homogenous coating.

During the coating operation, the valve bodies are rotated to ensure the symmetrical coating thickness. The standard coating thickness is around 200 micron.

Solidification

The coated parts are placed back into the oven, where the temperature will be reduced to 338°F ~374°F for solidification. The solidification duration is 40 minutes before the parts are taken out of the oven when the solidification temperature is reduced to 140°F.

Final Inspection

Before completing the quality inspection record, inspect the coating thickness, surface quality of epoxy coating and adhesion performance.