According to the invention a mixture of solid elements and a thermoplastic material in fluid state is placed in the gap 13 in a number of steps.

According to a first embodiment of the method according to the invention in a first step the half shells 15 and 17 are arranged over de gap 13 ~~in the direction of arrows A~~, such that the half shells 15, 17 form a mould 25 surrounding the gap 13. The half shells 15, 17 are provided with positioning pins 27 and positioning holes 29 to help aligning the half shells with respect to one another.

Subsequently, as shown in figure 2, solid elements 31 are introduced in the mould 25 through the hole 21. As shown in the detailed view of one of the solid elements 31, the solid element has the form of a ball with a through-hole 33, and flattened parts 35 on opposite sides thereof. However, in an alternative advantageous embodiment the solid elements do not have a through-hole 33. The solid elements 31 comprise or consist of polymeric material such as a thermoplastic material, in particular polypropylene.

As shown in figure 3 as a result of the form and size of the solid elements 31, the solid elements 31 form a stack of solid elements once introduced into the mould 25, wherein there are interconnected spaces 37 between the solid elements throughout the stack. In figure 3 is shown that the interconnected spaces 37 have a volume of about 20% of the volume to be filled, such that already 80% of the volume to be filled is solid material. However, the already filled volume could be up to 92% of the volume to be filled. The solid elements 31 are in contact with each other, such that forces may be distributed over the solid elements 31. In particular forces exerted on the solid elements 31 positioned farthest away from the wall of the pipeline

Claims

1. Method for filling a gap in the coating of a pipeline coated with a coating, preferably a thermo-insulating coating, said coating of the pipeline comprising a thermoplastic polymeric material, the method comprising the steps of:

- placing in the gap a mixture of solid elements and a thermoplastic polymeric material in fluid state; and
- letting the thermoplastic polymeric material in fluid state solidify.

2. Method according to claim 1, wherein

- the solid elements comprise a polymeric material.

3. Method according to claim 2, wherein

- said polymeric material of the solid elements is a thermoplastic polymeric material, and wherein preferably the solid elements consist of thermoplastic polymeric material.

4. Method according to claim 3, wherein

- the thermoplastic polymeric material of the solid elements is the same as said thermoplastic polymeric material in fluid state.

5. Method according to any of claims 1 to 4, wherein the step of placing in the gap a mixture of solid elements and a thermoplastic polymeric material in fluid state comprises:

- surrounding the gap by means of a mould;
- introducing in the mould the solid elements; and

- the solid elements are cooled before pre-bonding the solid elements.

23. Method for field joint coating, comprising the steps of:

- providing two lengths of pipe coated with a coating, preferably a thermo-insulating coating, wherein at least one end of each length of pipe is uncoated along a certain part of the length of pipe;

- placing the uncoated ends against each other;

- applying a girth weld to join said ends to form a pipeline coated with a coating and with a gap in said coating surrounding the girth weld; and

- filling said gap by means of the method according to any of the claims 1 to 22~~.~~

~~24. Method according to claim 23~~, wherein

- the coating of said two lengths of pipe comprises a thermoplastic polymeric material.

24~~25~~. Method according to claim 23~~24~~, wherein

- the thermoplastic polymeric material in fluid state that is placed in the gap is the same thermoplastic polymeric material as thermoplastic polymeric material of the coating of said two lengths of pipe.

25~~26~~. Pipeline coated by means of the method according to any of the claims 1 to 24~~25~~.

26~~27~~. Pipeline coated with a coating, the coating comprising a thermoplastic polymeric material, preferably a thermo-insulating coating, comprising a gap in said coating filled by a mixture of solid elements, preferably comprising a polymeric material, more preferably a thermoplastic

polymeric material, and a thermoplastic polymeric material in fluid state.

27~~28~~. Kit of parts for performing the method according to at least any of claims 5, 9, and 11, comprising

- a mould configured to surround the gap in the coating of the pipeline coated with a coating;

- solid elements configured to be introduced into the mould preferably comprising a polymeric material, more preferably a thermoplastic polymeric material;

- a device configured to melt thermoplastic material into fluid state and to introduce said thermoplastic polymeric material in fluid state into the mould; and

- thermoplastic polymeric material adapted to be melted into fluid state and to be introduced in fluid state into the mould by means of said device.