Pipe repair - heating coils

Heating coils often leak in the welding sleeve joints, due to the use of improper welding material. Heavily pitted pipe surfaces are often seen in the bottom area, and they are normally caused by the combination of bad steel – aggressive media- and high surface temperature.

Both types of leakage are easily repaired by use of Wencon Hi-Temp Coating and Reinforcement Tape.

Following procedure can be used:

1. Return pipes are dismounted and the pipes are drained for water, and blown through with compressed air, to ensure a dry surface.

2. Clean the area around the leak and carry out surface preparation acc. to Wencon surface preparation, next page.

3. Apply one layer of Wencon Hi-Temp Coating with a brush (half the bristles cut away, so it is more stiff)

4. Wrap Wencon Reinforcement Tape with a 50% overlap into the wet Coating, ensuring that the coating is penetrating the tape.

5. Apply a new layer of Wencon Hi-Temp, and a new layer of Reinforcement Tape, and follow the same procedure until you have at least 3 layers of Reinforcement Tape and 4 layers of Wencon Hi-Temp coating.

6. Let it cure for at least 8-10 hours before use.

Alternative products: Wencon Ceramic Coating

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Wencon surface preparation

Choose the relevant surface preparation, depending on the nature of the job.

Surface preparation using dry blasting methods:

Application with Wencon products on a dry surface, at minimum 3°C. above dew point.

1. Blast the machine part to SA 2,5 using sharp-edged blasting media, to a roughness of min. 75 microns.
2. Leave the part for sweating out salts in a warm place for at least 12 hours or heat it up to 30 - 40°C (86-104 °F) using gas torches.
3. Blast again to SA 2,5, prior to the application.
4. For parts containing a lot of water and salt, it may be necessary to repeat point 2 and 3, until the surface remains light grey, for at least 2 hours after blasting.
5. For optimal adhesion of Wencon products, always use Wencon Bio Cleaner or Wencon Cleaner prior to application. Follow one of below two methods:

5.1 Wencon Bio Cleaner

Wet surface: Apply Wencon Bio Cleaner and let it work for 5-10 min. If necessary use a brush, to make sure the surface is clean. Rinse off with clean water and wipe off with an absorbing cloth. Apply Wencon UW Coating as a primer, and hereafter any Wencon products can be applied.

Dry surface: Apply Wencon Bio Cleaner and let it work for 5-10 min. If necessary use a brush, to make sure the surface is clean. Rinse off with clean water and dry with an absorbing cloth or with compressed air for a completely dry surface. Hereafter any Wencon products can be applied.

5.2 Wencon Cleaner

After surface preparation, apply Wencon Cleaner with a brush and allow the product to evaporate before applying other Wencon products. Wencon Cleaner is non-flammable. Use only in large or well ventilated rooms.

Surface preparation using wet/damp methods:

Water jet the entire surface with water and sand to a standard, equal to SA 2,5 as described above.

If the surface is left wet after surface preparation, is it important to dry out the surface or alternatively use a Wencon UW product as a primer.

Surface preparation for emergency/temporary applications:

If above surface preparation methods are not possible, it may be necessary to use one of below methods:

- Blasting
- Grinding
- Needle Gunning

In emergency / temporary applications it may be difficult to prepare the surface according to above methods. In any case, it is important to clean the surface to SA 2,5 and 75 microns roughness. If possible dry the surface before applying. If not possible, use Wencon UW products prior to applying any other Wencon products.

For further information on Wencon surface preparation, please contact our Area Sales Managers.