

### **Artificial illumination of NOCX HDPE pipes**

We refer to current bridge designs including lightning of HDPE pipes.

Basically there are two kinds of artificial lightning used:

- Halogen headlights based on filament emit rays of 350 – 2000 nm
- Halogen headlights based on gas explosion emit rays more than 350 nm

Our NOCX pipes tested in Xenotests are irradiated with rays 300 – 800 nm, which is similar to the natural irradiation.

- UV – rays less than 300 nm are unfavourable for HDPE pipes.  
This value is not applicable for color mentioned lightning.
- Infrared rays with more than 800 nm result in heat-irradiation and do have influence on our pipes by warming up only.

### **Conclusion**

Artificial illumination of our NOCX HDPE pipes by using halogen-lightning is possible.

We recommend to consider the location of lightning in a distance big enough to avoid pipe surface heating to more than 50°C constantly (to prevent material from ageing due to heat).