

BRL K17102 PE piping systems with an plastic barrier layer for drinking water in polluted soil



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The motivation to make this evaluation guideline is originated in the seventies. It turned out that methyl bromide (applied as a soil disinfectant in horticulture) had polluted the drinking water in Westland (part of the Netherlands). The cause was to be found in the permeation behaviour of the used PE piping systems. There were also complaints concerning the odour and flavour of drinking water from pipes near petrol stations. As a result Kiwa carried out a large-scale investigation. Hereby it was concluded that the phenomenon 'permeation' (and as a result the pollution of drinking water) depends among other thing on the type of plastics used for the piping system.

The objective of this guideline is to guarantee the drinking water quality by specific relevant additional testing and criteria on the barrier properties of the piping system for an operation period of 50 years in polluted soil.