

PEAK and
Secondary Containment
(PGS-15 – WHG-19)

PEAK

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PEAK

- What is PEAK ?
- Certifications / approvals
- Where has it been applied ?
- How it works

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Demands from the government:

- Between 7.00 and 19.00 : No limitations
- Between 19.00 and 23.00 : Maximum level 65 dB(A)
- Between 23.00 and 7.00 : Maximum level 60 dB(A)

Polyurea applied on floor and walls : 54dB(A)

Polyurea applied on tail-lift : 58 dB(A)

An approved trailer receives a clearly visible PEAK (PIEK) sticker.



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To meet the requirements of the new approvals Elastogran developed a sound absorbing coating, with the same wear- and rolling-resistance as traditional floor.

Approvals by Cintec - FOCWA / TNO for transport equipment in the Netherlands showed that an absolute noise level of 54 dB (A) with this polyurea product has been measured.

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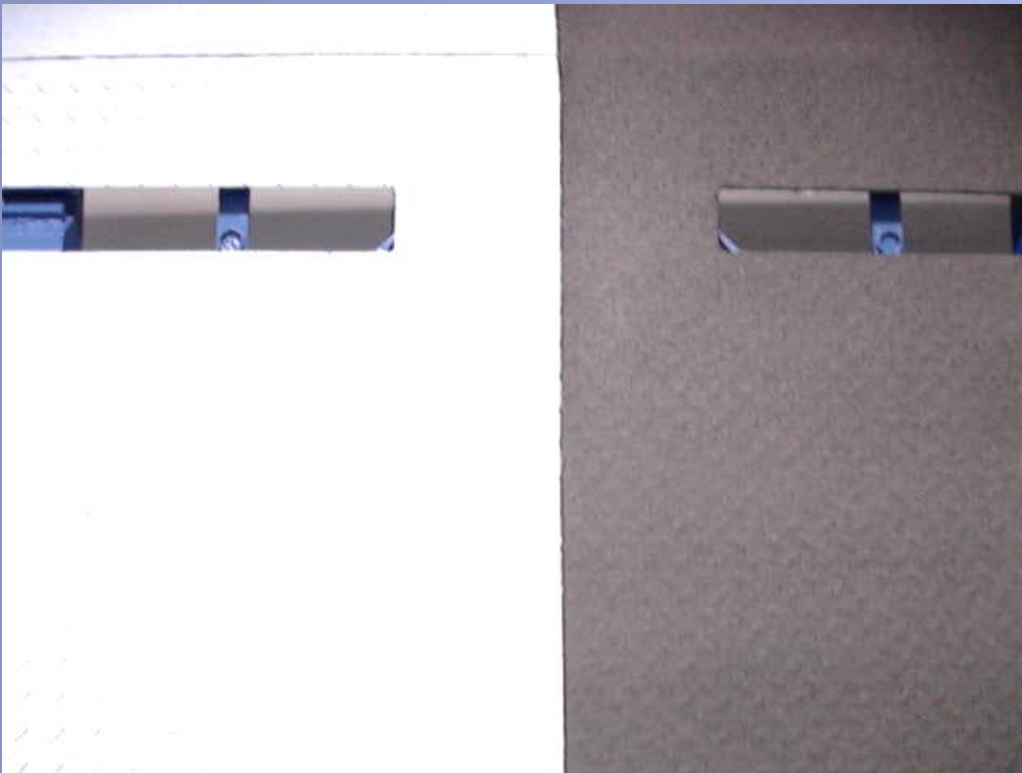
Floors with polyurea coating



Tail-lifts with polyurea coating

The polyurea is tested on floors,
side walls and also on tail-lifts.

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Noise level difference

Secondary containment



Secondary containment

PGS-15 WHG-19



Secondary containment

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What is secondary containment

- Secondary containment provides a barrier between a store of chemical liquid and the environment.
- A leak proof polyurea liner that completely surround the store of the chemicals.

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PGS 15

In 2008 a new legislation in the Netherlands came into force for the storage of hazardous substances, in Germany we now this as WHG-19

Existing situation

A floor made of prefabricated concrete slabs, with steel edges. This must be made waterproof and chemical resistant with polyurea.

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Prefabricated concrete slabs with steel edged the connection Joint are filed up with mastic joint filler

Secondary containment



Waterproof

In the Netherlands, a non-permeable floor has to meet the CUR 44 regulation. This is required for storage areas for chemicals.

Crack-bridging

Concrete slabs can have movement by the change of loads. Movement up to 5 mm is possible on the edges.

Durable chemical resistance

The polyurea is resistant to, most under ADR categorized, raw materials.

Rapid application

Because of weather conditions and progress in the building program a fast application is required.

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Chemical storage area

This store place meets the requirements of the PGS-15 legislation, coated with polyurea for in case of a calamity.

- Applied thickness 3 mm
- Anti-skid finish
- Surface area 1250 m²

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Waterproofing

Park deck application at Schiphol
A waterproof membrane must be made to stop the leaks

- Applied thickness 2,5 mm
- Topcoat with anti-skid finish.
- Surface area 1500 m²

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Primary containment

Mushroom farm, A waterproof membrane must be installed to stop the leak of steam and chemicals into the soil

- Applied thickness 2,5 mm
- Surface area 5 units of 375 m²

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Primary containment

Sewage tanks of wastewater , corrosion protection of concrete in caused by H_2S , and protect the environment to leakers in the concrete

- Applied thickness 2,5 mm
- Surface area 4 units of 220 m²



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Crack bridge solution

On concrete plates with a with opening in the joint there is made a over bridging with polyurea

- Applied thickness 5 mm
- Surface area 25 units of 25 m²



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Waterproofing

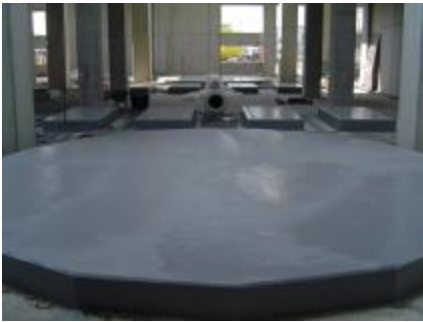
On a highway bridge deck, a water membrane is be installed under the bitumen to protect the concrete to sold and water.

- Applied thickness 4 mm
- Aggregate in top layer
- Surface area 800 m²

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Concrete floor protected to
leaked storage tanks of
chemicals



A waterproof membrane
must be made applied onto
the concrete under the
bottom of the tanks and to
the surrounding area

- Applied thickness 3 mm
- Surface area 450 m²

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Advantages of polyurea in secondary containment

- Quick return to service
- Durable against chemical attack and crack over bridging
- Fit for high mechanical use, high elongation, abrasion resistance
- Longevity
- Economical

Thank you for your attention

(questions)