

# AN-Seal

## Refractory Coatings

Gouda Refractories offers worldwide customer- specific total refractory solutions for every imaginable industry: non-ferrous metals, petrochemical, steel & iron, environment & energy and cement. Its state of the art production facilities produce refractory bricks, monolithics and precast shapes.

Since 1901, Gouda Refractories has proven that the company adds extra value when designing and producing refractory linings. Its state of the art production facilities does not just deliver refractory bricks, monolithic and precast shapes, but offers worldwide customer-specific total solutions for the iron & steel, non-ferrous metals, petrochemical, environment & energy and cement industries.



Scope  
**A-Z**

Since  
**1901**

Dedicated  
product  
range

Gouda Refractories introduces a range of high-quality coatings under the name AN-Seal, named after Ancile, the shield of the Roman god Mars.

Applying AN-Seal coatings will not only provide additional protection against chemical attack and the ingress of liquid metals (e.g. aluminum and zinc), aggressive slags, fluorides, and acids on the refractory lining and the steel structure behind it but also contribute to energy savings.

The correct selection and application of coatings help prolong the lifetime of refractory linings, reduce the maintenance downtime and has a positive effect on the operation performance. As a result, applying a coating offers a more economical and energy-efficient refractory lining system.



### AN-Seal 50 NW

#### Description

AN-Seal 50 NW is a white zircon containing water based fully thixotropic coating. AN-Seal 50 NW acts as a non-wetting barrier for surfaces that may come into contact with molten aluminium. The thixotropic nature of AN-Seal 50 NW makes it ideal as a non-drip coating for brushing, swabbing, over pouring or even roller application on large surface. It is not suitable for dipping.

#### Material Properties

Maximum Service	1.100	°C
Bonding Type	Chemical	
Base Material	Zircon	

#### Chemical Analysis (ISO 12677)

SiO <sub>2</sub>	30	%
ZrO <sub>2</sub>	> 55	%

### AN-Seal 58 HR

#### Description

AN-Seal 58 HR is a protective coating which is applied (by brushing) on refractory materials in heated installations. It is a heat reflective coating reducing energy consumption.

#### Material Properties

Maximum Service	1.800	°C
Bonding Type	Chemical/ Ceramic	

Mixing Water per 100 kg dry material	10 – 15	Litres
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Base Material	Zircon	
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#### Chemical Analysis (ISO 12677)

SiO <sub>2</sub>	38	%
ZrO <sub>2</sub>	58	%
Na <sub>2</sub> O	3,5	%

### AN-Seal 70 AR

#### Description

AN-Seal 70 AR is a protective coating which is applied on steel parts in heated installations. AN-Seal 70 AR protects against gaseous acids and other aggressive components in e.g. waste incinerators or flue gas ducts. AN-Seal 70 AR can be applied by brushing in several layers. The material use is  $\pm 1 \text{ kg/m}^2$ .

#### Material Properties

Maximum Service	800	°C
Bonding Type	Chemical	

Mixing Water per 100 kg dry material	20 – 25	Litres
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Base Material	Aluminium Silicates	
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#### Chemical Analysis (ISO 12677)

Al <sub>2</sub> O <sub>3</sub>	70	%
SiO <sub>2</sub>	24	%
Na <sub>2</sub> O	5	%

### AN-Seal 80 FA

#### Description

AN-Seal 80 FA is a phosphate bonded, corundum based coating. AN-Seal 80 FA is used for the protection of steel parts against corrosive gases such as fluorine acid (HF). After adding the liquid component the pot life of AN-Seal 80 FA is about 2 hours. The hardening is based on a chemical reaction. After heating to 300 °C the best anti-corrosive properties are obtained. AN-Seal 80 FA can be applied by brushing or spraying. The material use is about 1 kg powder with 0,5 kg liquid per m<sup>2</sup>.

#### Material Properties

Maximum Service	1.800	°C
Base Material	Corundum	

#### Chemical Analysis (ISO 12677)

Al <sub>2</sub> O <sub>3</sub>	80	%
SiO <sub>2</sub>	2	%
P <sub>2</sub> O <sub>5</sub>	16	%

