

SEALNOC GREASE

Tail seal grease for shield excavators

There is a shielding method using a shield machine as a typical construction method of tunnel excavation. **SEALNOC GREASE** is a dedicated grease for tail seal developed for the prevention of invasion of water and back-filling injection material from tail seal part of shield machine.

● SPECIAL FEATURES

1. Excellent water barrier at tail seal part of shield machine

SEALNOC GREASE contains multiple water-blocking effectants with extremely strong water barrier, so it exhibits excellent water barrier even at high water pressure.

2. Excellent pumpability

SEALNOC GREASE (replenishing **SP (N), MP, CR, NF, BD**) is a grease easy to pump out, because pressure loss in hose piping is small.

3. Excellent adhesion property

Hand-filled or pump-filled **SEALNOC GREASE** is economical with less flow out and drip. This is because of its superior adhesion property.

4. Difficult to softening when mixed with moisture

When moisture is mixed in, **SEALNOC GREASE** is hard to get soften and it's penetration change is small.

5. Delay hardening when in contact with back-filling injection material

SEALNOC CR (Cement Retarding) exerts excellent retardation effect against back-filling injection material. When the back-filling injection material is mixed in the brush part of the tail seal, it prevents the solidification of the brush and keeps water cut-off performance by delaying the curing of the back-filling injection material.

6. **SEALNOC NF** (Non Flammable) is incombustible.

7. **SEALNOC BD** (Biodegradable) is biodegradable and is registered as an Eco Mark product (Eco Mark certification number 19 110 007).

● APPLICATIONS

SEALNOC GREASE has excellent water barrier, so it can be used for the following applications.

- (1) Tail seal part of various shield machines
- (2) Bent seal part of bent shield machines
- (3) Various submersible mechanical seal parts

● FILLING PUMPS

We recommend using the following pumps to fill **SEALNOC GREASE**.

- (1) HEISHIN Ltd.
Heishin 2NTL 20-pail pump
- (2) Yamada Corporation
SR140PWAL-F•T Series(for pails)
- (3) SKF
#2024(for pails)
#2077(for drums)

● LINE UP

There are six kinds of **SEALNOC GREASE**, **FP, SP (N), MP, CR, NF, BD** and they are selected according to usage conditions.

● TYPICAL TEST DATA FOR SEALNOC GREASE

SEALNOC	FP	SP(N)	MP	CR	NF	BD
Applications	For initial filling	For supply and initial filling	For supply	Cure-retarding type of SP (N)	For initial filling	For supply and initial filling
Characteristic	Ideal for initial filling of shield machine	Initial filling can also be used for small diameter shield machine	It is easier to pump out than SP (N) under low temperature environment such as winter.	Ideal for supply to the shield machine. It has the effect of delaying the curing of the back filling material.	A flame retardant, there is an effect of fire prevention.	Environmentally friendly type with biodegradability.
Appearance	Brown, Semi solid	Brown, Semi solid	Brown, Semi solid	Brown, Semi solid	White, Semi solid	White, Semi solid
Penetration (UW)	200	240	280	238	230	232
Density (25 °C) g/cm ³	1.2	1.2	1.2	1.1	1.46	1.0
Copper plate corrosion (100°C, 24h)	Passed	Passed	Passed	Passed	Passed	Passed
Water Pressure Test* MPa	3.5 or more	3.5 or more	3.5 or more	3.5 or more	3.5 or more	3.5 or more
Containers 180kg-drums	No inner bag	With inner bag	With inner bag	With inner bag	With inner bag	With inner bag
16kg-pail cans	No inner bag	With inner bag	With inner bag	With inner bag	With inner bag	With inner bag

*Water Pressure Test of Tail Seal Grease for Tunnel Shield Machine

Note: The typical properties may be changed without notice. (September 2020)



Handling Precautions

▼ Follow these precautions when handling this product.

SEALNOC FP, SP(N), MP

Composition :	Base Oil(s), Thickener, Additives
Precautionary pictograms:	Not applicable
Signal word:	Not applicable
Hazard Statement:	Not applicable
Precautionary Statements:	<ul style="list-style-type: none"> Do not handle until all safety precautions have been read and understood. Wear protective gloves/protective clothing/eye protection/face protection. Do not allow the eyes to become exposed to the product. Do not swallow the product. Wash hands thoroughly after handling. Do not eat, drink or smoke when using this product.
Response	<ul style="list-style-type: none"> IF SWALLOWED: Immediately call a POISON CENTER or doctor/physician. IF SWALLOWED: Rinse mouth. Do NOT induce vomiting. If the eyes are exposed to the product: Rinse the eyes with plenty of running water and immediately contact a physician. IF ON SKIN: Wash with plenty of soap and water.
Storage	<ul style="list-style-type: none"> The product must be stored in a cool, well-ventilated location where it will not be exposed to direct sunlight. Containers that have been opened must be tightly sealed.
Disposal	<ul style="list-style-type: none"> Dispose of contents/container in accordance with local/regional/national/international regulations. If there are any doubts about proper methods of handling the product, contact the point of purchase before proceeding with usage.

SEALNOC CR, BD

Composition :	Base Oil(s), Additives
Precautionary pictograms:	Not applicable
Signal word:	Not applicable
Hazard Statement:	Not applicable
Precautionary Statements:	<ul style="list-style-type: none"> Do not handle until all safety precautions have been read and understood.
Prevention	<ul style="list-style-type: none"> Wear protective gloves/protective clothing/eye protection/face protection. Do not allow the eyes to become exposed to the product. Do not swallow the product. Wash hands thoroughly after handling. Do not eat, drink or smoke when using this product.
Response	<ul style="list-style-type: none"> IF SWALLOWED: Immediately call a POISON CENTER or doctor/physician. IF SWALLOWED: Rinse mouth. Do NOT induce vomiting. If the eyes are exposed to the product: Rinse the eyes with plenty of running water and immediately contact a physician. IF ON SKIN: Wash with plenty of soap and water.
Storage	<ul style="list-style-type: none"> The product must be stored in a cool, well-ventilated location where it will not be exposed to direct sunlight. Containers that have been opened must be tightly sealed.
Disposal	<ul style="list-style-type: none"> Dispose of contents/container in accordance with local/regional/national/international regulations. If there are any doubts about proper methods of handling the product, contact the point of purchase before proceeding with usage.

SEALNOC NF

Composition :	Base Oil(s), Additives
Precautionary pictograms:	
Signal word:	Danger
Hazard Statement:	<p>May cause respiratory irritation, or May cause drowsiness or dizziness. Causes damage to organs (lung) through prolonged or repeated exposure.</p>
Precautionary Statements:	<ul style="list-style-type: none"> Do not handle until all safety precautions have been read and understood.
Prevention	<ul style="list-style-type: none"> Wear protective gloves/protective clothing/eye protection/face protection. Do not allow the eyes to become exposed to the product. Do not swallow the product. Use only outdoors or in a well-ventilated area. Do not breathe dust/fume/gas/mist/vapours/spray. Wash hands thoroughly after handling. Do not eat, drink or smoke when using this product.
Response	<ul style="list-style-type: none"> IF SWALLOWED: Immediately call a POISON CENTER or doctor/physician. IF SWALLOWED: Rinse mouth. Do NOT induce vomiting. If the eyes are exposed to the product: Rinse the eyes with plenty of running water and immediately contact a physician. IF ON SKIN: Wash with plenty of soap and water. IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing. Get medical advice/attention if you feel unwell.
Storage	<ul style="list-style-type: none"> The product must be stored in a cool, well-ventilated location where it will not be exposed to direct sunlight. Containers that have been opened must be tightly sealed. Store locked up.
Disposal	<ul style="list-style-type: none"> Dispose of contents/container in accordance with local/regional/national/international regulations. If there are any doubts about proper methods of handling the product, contact the point of purchase before proceeding with usage.