

PENGUIN SEAL

999 Type NB

1-Component Polyurethane Sealant

Optimum sealant for
paint-finish joints of
concrete and ALC!

A non-bleed sealant
paintable with
various finishing
compounds and
paints without
contaminating paint
films

Excellent capability
of following
movement of
application surfaces



“Penguin Seal 999TypeNB” is a moisture-curing 1-component elastic sealant consisting mainly of polyurethane. It is suitable for sealing various paint-finish joints of concrete and mortar, for repairing cracks and chips, and for paint-finish joints of ALC and other exterior building materials. It is a “human-friendly and ecological sealant containing no volatile organic compound (VOC) that will adversely affect environment.

Application

- Paint-finish joints of concrete and mortar
- Paint-finish joints of ALC and other exterior building materials
- Repairing of flexible joints and sealing of corner cants, drains, and deaeration cylinders

Penguin Seal 999TypeNB features:

- (1) Being a 1-component sealant, eliminating mixing procedure and preserving the quality
- (2) Reducing poor build as compared with conventional sealants
- (3) High internal curing speed as compared with conventional sealants
- (4) A non-bleed sealant paintable with various finishing compounds and paints once the surfaces are cured, while eliminating contamination of paint films
- (5) Forming a flexible rubber body once cured, providing excellent capability of following movement of application surfaces
- (6) Contains none of 13 volatile organic compounds (VOCs) that can cause sick-house syndrome as specified in "Guidelines for Indoor Air Pollution - Guideline values for indoor concentration" by the Ministry of Health, Labor and Welfare.
- (7) Registered as a non-formaldehyde product conforming to the Voluntary Regulations for Controlling Formaldehyde Pollution issued by Japan Sealant Industry Association (JSIA F ☆☆☆☆)

Properties/Performances of Penguin Seal 999TypeNB

■ Performances

Item		999TypeNB	Test method
Appearance/Color		Colored paste form	Visual inspection
Density	23°C	1.49	Our test method
Loss of quantity by heating (%)		6	JIS K 6833
Viscosity	5°C	Good	Our test method
Foamability		None	Our test method
Tuck-free time (hours)	23°C/50%RH	7	JIS A 1439
Hardness	23°C	23	JIS K 6253
Shelf life	In storage at 23°C or lower	12 months	—

* The test results show typical values.

■ Performances according to JIS 5758:2010

Item				999TypeNB
Classification according to JIS 5758:2010)				F-20LM - 8020(PU-1)
Slump(mm)	Vertical	50℃	0	
		5℃	0	
	Horizontal	50℃	0	
		5℃	0	
Elasticity recovery rate (%)				88
Tensile Property	Tensile Strength(N/mm ²)	Mortar plate	23℃	0.1
			−20℃	0.2
Adherability at maintained extension		Mortar plate	23℃	No failure/No failure
			−20℃	No failure/No failure
Adherability after compressional heating and cooling at maintained extension		Mortar plate	23℃	No failure/No failure
Adherability at maintained extension after immersion in water		Mortar plate	23℃	No failure/No failure
Volume loss (%)				7
Durability				Conforming to 8020

* Test methods for items above conform to JIS A 1439:2010.

* The tests results show typical values.

Precautions for application

- For application environment, follow "JASS 8 (waterproofing work)" and Guidelines for Supervising Construction Work.
- Do not try to apply the sealant to joints when the application surface is wet, including when it is raining or snowing, or to damp, wet joints of concrete having a high water content. Check that the surfaces are completely dry prior to application. Otherwise, poor curing, poor adhesion, swelling and other failures may occur.
- Alcohols can cause poor hardening. Do not try to simultaneously apply the sealant close to the area where a silicon/modified silicon sealant or an adhesive is being applied.
- To clean the joining surfaces, select a cleaning detergent that will not damage the joining surface. Do not use alcohol solvents. Allow the surfaces to get completely dry after cleaning.
- Prevent water from mixing in the sealant.
- Do not use the sealant for glass materials in general to which the sealant will not adhere.
- Do not use the sealant for rigid PVC feed-water tubes.
- The sealant is a polyurethane sealant. Apply the sealant in thickness of 2mm or more. Do not fail to coat the sealant.
- Paint the sealant within 1 week after application when the sealant goes tack-free.
- The sealant can foam when the substrate is excessively heated.
- Some paint films and paints can poorly adhere or can get sticky to the sealant surface. Check their characteristics before application.
- Use the sealant within the shelf life.

Precautions for handling

- The sealant is developed and manufactured for use in general industries. Never use it for other purposes such as for medical use, implant or injection in the human body, or retention of part of the sealant in the human body.
- Make sure the working area is well ventilated in handling the sealant. Otherwise the eyes and the nose can be irritated and the inhaled air can affect the human body.
- In case the sealant gets into your eyes, rinse them thoroughly with clean water and immediately consult an eye doctor.
- In case you get sick by inhaling the vapor of the sealant, or in case you ingest the sealant, immediately consult a doctor.
- In case the pre-cured sealant comes in contact with your skin, immediately remove it with a piece of waste cloth. Then thoroughly wash the skin with soap and water. If irritation or inflammation occurs, immediately consult a doctor.
- Store the sealant in a dry, well-ventilated, dark and cold place (at 25°C or lower) while avoiding direct sun and rain.
- For disposal of vacant containers of the sealant, have a licensed industrial waste disposal contractor handle it.
- The sealant is flammable. Do not smoke during application of the sealant.
- Wear protective gloves, masks and glasses as necessary during application of the sealant.
- Keep the sealant out of reach of children.
- For more detailed information on safety, storage, first-aid measures, emergency measures (including fire and leakage), and disposition, refer to the catalog, the Material Safety Data Sheet (MSDS), and the indications on the product package.

Volume/packing/Color

■ Penguin Seal 999TypeNB

Product name	Volume	Packing/Color	Quantity
Penguin Seal 999TypeNB	320ml	Paper-tube cartridge	10 cartridges/box
Primer BC-3	500ml	Square metal can	10 cans / box

* Standard colors of 999TypeNB:

"New gray 2," "Amber2," "Beige2," and "White 2"

Notes:

The information and data contained in this catalogue are based on results of the tests we carefully conducted. However, the performances and the properties of the product may differ according to materials and application conditions. Carefully consider and check the above before use. The product descriptions contained in this catalogue are subject to change without notice.

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