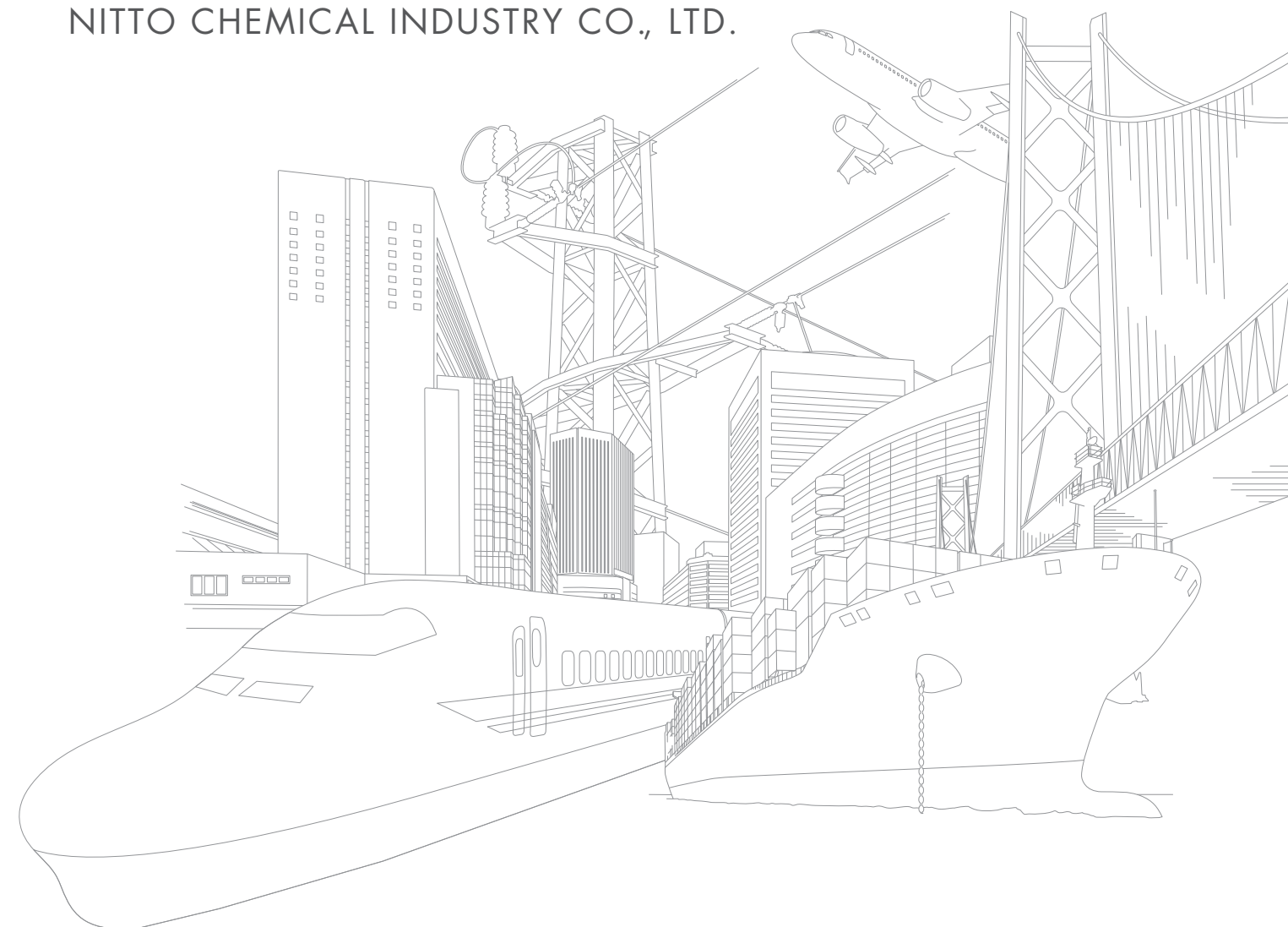


# GENERAL CATALOG

NITTO CHEMICAL INDUSTRY CO., LTD.





We provide authentic **MADE-IN-JAPAN** products and support society at the fields unnoticed but reliable operative behind the scenes.

"Bonds of Relation: complying continuously with the concept of warm-hearted hospitality."  
This is the aspiration of our company from the beginning and it still continues today. We strongly believe that our consistent product research and development based on the perspectives of our customers would enhance the bonds of relation further, regardless of any nation, area and culture.

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# JAPAN-MADE QUALITY

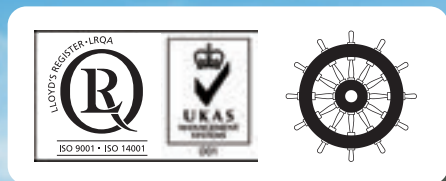
We persistently take great confidence and pride in manufacturing products.

Nitto Chemical Industry Co., Ltd. is a chemical maker, mainly producing sealing compound and epoxy adhesive.

Our original brands, NEOSEAL and PLASEAL, are in high favor among most of Japanese customers. Especially, that branded putty series are widely applied for various fields such as constructions, vessels and train cars.

We continuously support the society fundamentally and aspire for serving as a global standard.

Also, Okayama factory acquired ISO 9001: 2000 (quality management standard) in 2001, approval of business facility by Ministry of Land, Infrastructure, Transport and Tourism in 2003, and ISO 14001: 2004 (environment management standard) in 2006, and MED 96/98/EC quality system Module D certificate in 2015.



It's always kept clean in the factory.



Well-ordered in the factory, that enhanced entering and dispatching from warehouse.



Completely arranged and organized.



Deploying thermostatic chamber and conducting series of quality test.



All the employees in the factory are committed to make well-favored products cheerfully, energetically and sincerely.



Periodical group meeting in each department contributes to productivity improvement.



Employees make the best effort to improve the production efficiency: spontaneous effort and devotion to the work efficiency improvement.



Indispensable to invent or develop a new product in this R&D room.



Only the products passing rigid quality tests eventually reach to customers.



General director in each department sets up joint meeting together periodically, where they interact and exchange opinions energetically.



# WHAT IS **PUTTY** ALL ABOUT ?

What can be simply imaged and associated with putty should be the clay children usually play with.

That is really fun thing, which inspires imagination for shaping whatever we want to make such as notable characters and animals.

In the same way, our putty products can also be shaped freely and applied to a variety of voids and holes to be filled.

Further, those having moldable, pliable and flexible features enhance versatility and usability compared to formed sealing materials.

Let's open up new ways and possibilities with our putty products!

## **PUTTY** CATEGORY

**STANDARD PUTTY**  
NEOSEAL B-3 / B-W / B-1

**FOR TRAIN CAR**  
PLASEAL B-UF

**FOR CONSTRUCTION**  
PLASEAL NF-12HM

**FOR VESSEL AND OFFSHORE**  
PLASEAL NF-23 / NF-24 / NF-25

**FOR MANY FIELDS**  
EPOXY RESIN

**REPELLENTS**  
KICKNEN B-7V / POPOSEAL

## PUTTY WILL MAKE IT IN THE CASE OF...

### Case1

#### REQUEST FOR SIMPLE AND EASY WORKABILITY

Instantly usable after opening packet.

No need of industrial tools and whoever can use and apply with itself.

##### IF USING OTHER SEALING MATERIALS...

Mortar; really cheap, but requires mixing before work and easily dripping-down at the wall surface

Caulking material; requires some industrial tools

### Case2

#### REQUEST FOR SEALING DIVERSIFIED VOIDS AND HOLES

Applicable to a variety size and shape of voids and holes with its moldable feature.

Uniformly and simply usable to whatever sized voids and holes.

##### IF USING OTHER SEALING MATERIALS...

Rubber seal; really feasible to the formed and designated holes, but unmatched to the irregular ones

Caulking material; really convenient for the tight voids, but infeasible for the large ones

### Case3

#### REQUEST FOR ADDITIONAL FEATURE BESIDES SEALING FUNCTION

Customized putty product series satisfy each specialized requirement besides sealing function depending on the uses.

(Flame-retardant putty, rodent repellent putty, curable putty under the water, a variety of colored putty series, etc.)



STANDARD PUTTY

NEOSEAL SERIES  
B-3/B-1/B-W

The NEOSEAL branded non-hardening putty series are highly demanded for most of the customers in Japan. Since originally manufacturing sealing compound in 1956, our sealing products have been widely applied for many fields such as constructions, vessels and train cars, and especially for public works. Together with NEOSEAL B-3 preferred extensively, we also prepare NEOSEAL B-W(white colored putty) and NEOSEAL B-1(flame-resistant putty) for a variety of customer needs.



FOR TRAIN CAR

PLASEAL  
B-UF

Mostly plausible to the area of electric/telecommunication equipment in train cars executively requiring frame-resistance performance.



FEATURES

- Excel at adhesiveness, waterproof and sustainability of sealing performance.
- Fined texture and non-sticky tactile sensation make easy workability.
- No irritating odor because of its non-solvent type.
- Good at workability under low temperature environment.

USES

- Sealing for voids and spaces requiring waterproof, protection from insects, corrosion, dust prevention and seal performance.
- Construction: cable and pipe space, electrical equipment etc.
  - Plant: the cut end of plants for protection after pruning etc.
  - Vehicles related: train cars, etc.
  - Vessels related: inner sealing for water-proof gland, lightning equipment, traffic light device, telecommunication equipment, etc.

HOW TO USE

- Please clean the surface where the sealing products will be applied, and be free of drainage such as oil, water, and dust.
- The sealing products can be applied by hand work, and you can use a stick or suitable instrument to support your work.
- Remained products should be stored with the surface covered by some wrap like plastic bag.



FEATURES

- Passed non-combustibility standard level at combustion test for materials of train car uses, and obtained NFPA130/EN45545-2 standard certificate (complying with performance criteria).
- Superior to frame-resistance.
- Excel at adhesiveness, waterproof and sustainability of sealing performance.
- Fined texture and non-sticky tactile sensation make easy workability.
- No irritating odor because of its non-solvent type.
- Good at workability under low temperature environment.

USES

- Sealing for voids and spaces requiring waterproof, protection from insects, corrosion, dust prevention and seal performance.
- Vehicles related: train cars, etc.
  - Vessels related: inner sealing for water-proof gland, lightning equipment, traffic light device, telecommunication equipment, etc.

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SPECIFICATION

ITEM	NEOSEAL B-3	NEOSEAL B-W	NEOSEAL B-1	METHOD
Appearance	Dark Gray	White	Gray	Observation
Penetration	64	65	63	JIS A 5752 Load:100g ■ 5sec
Specific Gravity	2.05	2.05	2.05	Convert weight in water
Heat Resistance	NP	NP	NP	Originally measured(80°Cx72hr)
Cold Resistance	NP	NP	NP	Originally measured(-20°Cx72hr)
Flame Resistance	-	-	UL-94 V-0 level	Fire test of the plastic material (Base on UL-94)
Size(mm)	80x40x160	80x40x160	80x40x160	-
Weight	1kg / pack	1kg / pack	1kg / pack	-
Packing	20packs / case	20packs / case	20packs / case	-

\*The above inspection data is measured originally, so it does not guarantee as a standardized data. \*NP = Not Particular

SPECIFICATION

ITEM	PLASEAL B-UF			METHOD
Appearance	Gray			Observation
Penetration	64			JIS A 5752 Load:100g ■ 5sec
Specific Gravity	2.00			Convert weight in water
Heat Resistance	NP			Originally measured(80°Cx72hr)
Cold Resistance	NP			Originally measured(-20°Cx72hr)
Flame Resistance	UL-94 V-0 level			Fire test of the plastic material (Base on UL-94)
Size(mm)	80x40x160			-
Weight	1kg / pack			-
Packing	20packs / case			-

NFPA130	MEASURED VALUE		CRITERIA	TEST STANDARD
Radiant Panel Index (Is)	12.73		<25	ASTM E162
Smoke Density (Ds)	Flaming Mode 17	Non-Flaming Mode 2	<100	ASTM E662
Toxic Gas Generation (ppm)	HCN	<2	<150	BSS 7239
	CO	183	10	
	NOx	<2	<100	
	SO2	<1	<100	
	HBr	<1.5	<200	
	HCl	<1	<500	

EN45545-2		MEASURED VALUE	CRITERIA (R22 / HL3)	TEST STANDARD
Oxygen Index(OI)		32.4	>32	ISO 4589-2
Smoke Density		15.5	<150	EN45545-2 ISO 5659-2
Toxic Testing	CO2	433	Toxicity Index CITNLP (=ΣCITNLPi) 0.03	<0.75 EN 45545-2:2013 Annex C Method 2
	CO	14.90		
	HF	0.19		
	HCL	0.04		
	HBr	0.00		
	HCN	0.09		
	NOx	0.10		
	SO2	0.19		

\*The above inspection data is measured originally, so it does not guarantee as a standardized data. \*NP = Not Particular



FOR CONSTRUCTION

PLASEAL  
NF-12HM

Indispensable in case of fire. Fire-tight putty for preventing fire-spread through electric cables in constructions.



FOR VESSEL AND OFFSHORE

PLASEAL  
NF-23 / NF-24 / NF-25

PLASEAL NF-23 and PLASEAL NF-24 + PLASEAL NF-25 combination complying with 2010 FTP Code and passing IMO Resolution MSC. 307(88) -2010 FTP Code for A-class cable transits, which means applicable in global scale.



FEATURES

- Easily usable with a split.
- Highly efficient workability with flexibility even under low temperature.
- Acquired Minister of Land, Infrastructure and Transport and Tourism(MLIT) acclaimed construction method (an hour fire-tight at fire-retardant designated cable penetrations.)
- Obtained construction method, performance rated at General Incorporated Foundations of Fire Protection Equipment and Safety Center of Japan. (an hour fire-tight at cable or PF/CD tube penetrations on the wall of dwelling unit in apartment buildings and elsewhere.)



FEATURES

- PLASEAL NF-23 helps saving vessel's weight with its low specific gravity (approximately 0.8) and, most importantly, ensures super easy-to-use application under any cable transit conditions with its one-component typed material and the features of its pliable, moldable and flexible performance.
- PLASEAL NF-24 (two-component mixing type) and PLASEAL NF-25 (putty type) should be applied as a combination together. Those satisfy A-class standard, of course, and have excelled water/gas tight (2.5MPa/0.3MPa) performance.



SPECIFICATION

ITEM	PLASEAL NF-12HM	METHOD
Appearance	Gray	Observation
Penetration	70	JIS A 5752 Load:100g ■ 5sec
Specific Gravity	1.60	Convert weight in water
Size(mm)	80×40×200	-
Weight	1kg / pack	-
Packing	10packs / case	-

\*The above inspection data is measured originally, so it does not guarantee as a standardized data.

SPECIFICATION

ITEM	PLASEAL NF-23	PLASEAL NF-24		PLASEAL NF-25	METHOD
		BASE(Liquid)	HARDENER(Powder)		
Appearance	Ivory	Light brown / Hardened material		Gray	Observation
Penetration	125	-		65	PLASEAL NF-23:JIS K 2220 PLASEAL NF-25:JIS A 5752
Specific gravity	0.80	1.70		1.60	Convert weight in water
High temperature test	Not recognized cracks, wrinkles,and changes of color				IEC 60945(70°C×72hr)
Low temperature test					IEC 60945(-30°C×72hr)
Size(mm)	80×40×155	-		80×40×200	-
Weight	400g / pack	500g / pack	600g / pack	1kg / pack	-
Packing	40packs / case	20packs / case	20packs / case	10packs / case	-

\*The above inspection data is measured originally, so it does not guarantee as a standardized data.

FOR MANY FIELDS

# EPOXY RESIN

Advantaged with great adherence property, adhesion strength, durability and solvent resistance, our epoxy adhesives are applicable to multi-purposes.



REPELLENT

# KICKNEN B-7V



REPELLENT

# POPPOSEAL



## FEATURES

- Usable and hardening even under water.
- Hardly dripping off and even plausible to wall surface and wrapping portion because of its putty type.
- Great tensile shear adhesiveness and compressive strength.
- Easy workability since of 1 to 1 rated mixing.
- No solvent included, so hardly shrinking after hardened.

## USES

- Repairing for any constructions, pathways and floors/walls made of concrete, stone, etc.
- Mending for water leakage portions, and waterproof application.
- Fixing hand hole and pipe, or adhering conjunction areas between pipes.
- Production and repairing of model/artifact.
- Others; mending for cracks and deficit portions in any areas.

## HOW TO USE

- Take out the same amount of base and hardening agent you need with some gloves.
  - Take appropriate amount of base and hardening agent, and twist them to mix smoothly.
  - Mix them so will until the appearance will uniformly turn to gray color.
  - Apply to the places you would like to fix or repair, and don't touch and move it until it finishes hardening.
- ※Please do not work under the condition below 5°C. Wear some gloves and a mask when you apply.

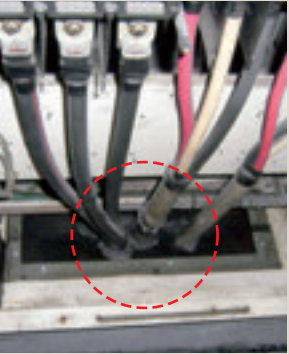


## FEATURES

Keeping rodents away from applied areas with long-term sustainable repellent effect using micro-capsuled "pepper's spicy ingredient". Also its high quality non-hardening typed putty, featuring flame retardation and quite superior for workability in terms of adhesion and sealing performance.

## USES

- Cable/pipe penetrations in buildings, factories, warehouses, kitchens, etc.
- Entrance of mice/rodents invasion.
- Electric equipment, etc.



## FEATURES

Pasty bird repellent made of tacky synthetic resin material keeps any birds from landing on the applied places without harming them.

## USES

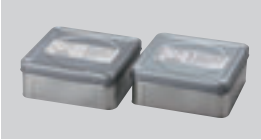
- Iron tower, power pole, bridge, etc.
- Construction roof and arm railing.



## SPECIFICATION

ITEM	PLASEAL E-189	METHOD
Appearance	Base / Dark Gray putty Hardening / White putty	Observation
Mixing Ratio	1:1	Weight ratio
Specific Gravity	Base / 1.95 Hardening / 1.95	Convert weight in water
Applicable Time	60min(20°C / 200g)	Originally measured
Water Absorption	< 0.3%	Originally measured
Compressive Strength(MPa)	53(20°C-24hr) 78(20°C-168hr)	JIS K 6911
Hardness(HDD)	84(20°C-24hr) 87(20°C-168hr)	JIS K 7215
Size(mm)	50x25x100	-
Weight	500g / set	-
Packing	10sets / case 30sets / case	-

\*The above inspection data is measured originally, so it does not guarantee as a standardized data.



**PLASEAL E-130 (Clayey Epoxy)**  
Perfectly suitable to any waterproof applications such as hand hole fixation for electrical circuits, sealing of each pipe penetration and fixation of water joint parts.



**PLASEAL E-330 (On-the-ground Preparation Type Injective Anchoring Adhesive)**  
• Simple preparation process: Just adding hardener to the base container and mixing them.  
• Easy-to-use workability: ensuring application without getting hands dirty and ease of injection to small-diameter hole.  
• Very powerful adhesion: effective specially to base materials such as concrete, stone and metal.



**PLASEAL E-269 (Paste Type Epoxy for Surfacing Process)**  
Low-contraction and ensuring great painting performance, so best suited to surfacing process before painting and the maintenance or repair work.



**PLASEAL E-384 (Transparent Epoxy)**  
Low-exothermic via hardening and hardly-tarnishable with time, so perfectly suited for modeling and adhesion of any parts requiring sustainable art of design.

## SPECIFICATION

ITEM	KICKNEN B-7V	METHOD
Appearance	Light Gray	Observation
Penetration	50	JIS A 5752 Load:100g ■ 5sec
Specific Gravity	2.00	Convert weight in water
Heat Resistance	NP	Originally measured (70°Cx72hr)
Cold Resistance	NP	Originally measured (-20°Cx72hr)
Flame Resistance	UL-94 V-0 level	Fire test of the plastic material (Base on UL-94)
Size(mm)	80x40x160	-
Weight	1kg / pack	-
Packing	10packs / case	-

\*The above inspection data is measured originally, so it does not guarantee as a standardized data.  
\*NP = Not Particular

## SPECIFICATION

ITEM	POPPOSEAL	METHOD
Appearance	Colorless translucent	Observation
Penetration	250	JIS A 2220 Load:150g ■ 5sec
Specific Gravity	0.90	Convert weight in water
Heat Resistance	NP	Originally measured (70°Cx24hr)
Weight ■ Packing	Cartridge Type 320ml / pack ■ 30packs / case	-
	Tube Type 250g / pack ■ 30packs / case	-
	Tube Type 400g / pack ■ 25packs / case	-

\*The above inspection data is measured originally, so it does not guarantee as a standardized data.  
\*NP = Not Particular