

**Cementitious Non-shrink Grout** (Pre-mixed type)

(高强度无收缩水泥基高性能灌浆料)

**PRE U=LOX**

**Manufactured by :**

**Thai TMC Co., Ltd.**

32/25 Pathum-Sena Rd., Moo 4, Tumbol Thai Koh, Amphoe Samkhok,  
Pathumthani 12160, Thailand

Tel. +66 2 101 1046~7 Fax +66 2 101 1048

[www.thaitmc.com](http://www.thaitmc.com)



**Taiheiyo Materials Corporation**

**Pre U-LOX** is a high performance cementitious non-shrink grout which was developed based on our EXPAN, a lime based expansive additive. **Pre U-LOX** is a pre-mixed product which consists of fine aggregate and a binding material(cement and special admixtures), and those two materials are mixed in the ratio of 1:1 by weight. Only mixing with water at job sites gives the high performance abilities as a non-shrink grouting material.

**Pre U-LOX** 是一种高强度无收缩水泥基高性能灌浆料。

**Pre U-LOX** 是一种预制混合好的材料，使用时只需添加适量的水即可调制高性能灌浆料。

## FEATURES (特长)

### 1 Pre-mixed type (预制品)

It is easy to get the stable quality and performance because the product is a pre-mixed one. Moreover, it is possible to get the high performance non-shrink grout by only mixed with water at job sites.

### 2 Ideal flowability (具有出色的流动性)

Higher and more excellent flowability can be obtained in comparison with the ordinary mortar, so that small spaces etc. can be easily filled with the product. The product has excellent workability.

### 3 Non-bleeding (不会发生泌水现象)

Because of non-bleeding of the product after pouring, no treatment for change of volume is required.

### 4 Non-shrinkage (无收缩)

No shrinkage occurs under the condition of restraint due to a cementitious expansive additive included as the core material. Therefore, the product surely and strongly adheres and unifies with the concrete materials such as foundation after being applied.

### 5 Non-metallic (不会生锈)

The product is superior in the long-term stability such as no tarnish of the applied surface caused by rust because it is a cementitious product.

### 6 High strength (具有早强性和高强度)

**Pre U-LOX** assures high early strength and ultimate compressive strength, and the strength is stable for a long term.

### 7 Heat and seawater resisting quality (具有良好的耐热性和耐海水性)

Hydration product created from the lime-based expansive additive is stable and shows high heat and seawater resisting characteristics. Therefore, **Pre U-LOX** can be applied under the conditions of relatively high temperature or to seaside structures.

## STANDARD MIXING PROPORTION (标准配合比)

	Applicable temperature range (°C)	Consistency with J14 funnel (sec.)	Pre U-LOX (kg)	Quantity of Water (kg)	Yielding Volume (lit.)
Unit (kg/m <sup>3</sup> )	5 - 35	8 ± 2	1,875	338	1,000
per 1 bag			25 (1 bag)	4.50	approx. 13

1) The required quantity of **Pre U-LOX** for 1 m<sup>3</sup> is approx. 75 bags.

2) The required quantity of water for mixing to obtain proper consistency varies depending on atmospheric temperature, temperature of material, etc. Therefore, the preliminary test mixing should be carried out to decide the proper quantity of water.

AN EXAMPLE OF PROPERTIES (特征例)

Pre U-LOX	Curing Temperature (°C)	Quantity of Water (kg)	Consistency (sec.)	Bleeding (%)	Compressive Strength (N / mm <sup>2</sup> )				Elastic modulus of elasticity (x10 <sup>4</sup> N / mm <sup>2</sup> )	Cl ion (kg / m <sup>3</sup> )
					1 day	3 days	7 days	28 days		
25kg (1 bag)	5	4.80	7.3	0.0	4.2	30.1	38.7	50.5	-	-
	20	4.50	7.5	0.0	29.3	42.4	50.3	67.5	2.95	0.13
	30	4.40	7.2	0.0	34.1	46.3	54.7	71.3	-	-

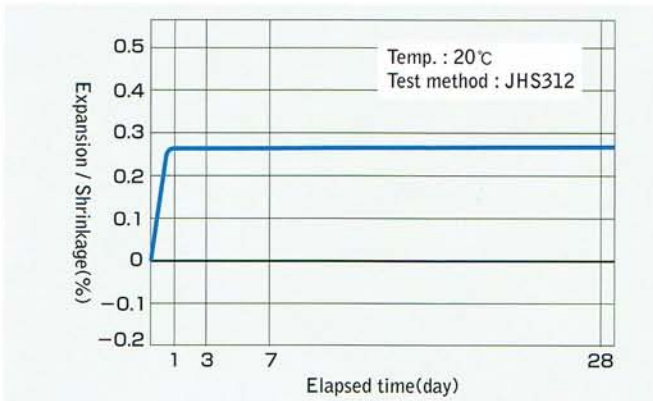
Remarks (The required quantity of water slightly varies with the atmospheric temp., the temp. of material, etc.)

Consistency : JHS312      Elastic modulus of elasticity : JSCE-G502 (28days)      Bleeding : JHS312

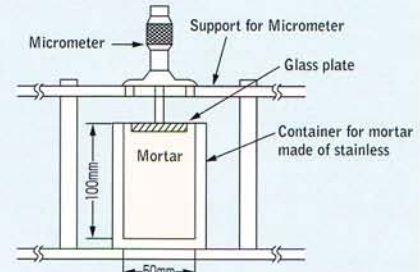
Cl ion : JASS 5T-502      Compressive Strength : JHS312

JHS is the Standard for Testing Method constituted by NEXCO(ex-Japan Highway Public Corporation)

Change of Expansion / Shrinkage (经时变化图 (膨胀率/收缩率))

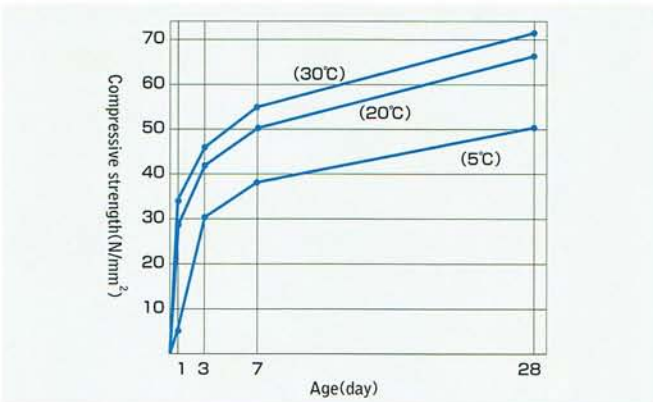


Apparatus for Expansion and Shrinkage

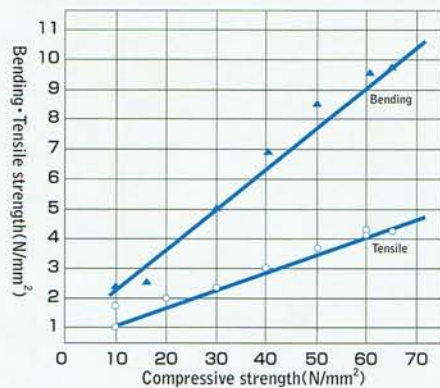


The container should be filled with mortar, and the surface treatment should be conducted. The top of the container should be zero point for the measurement.

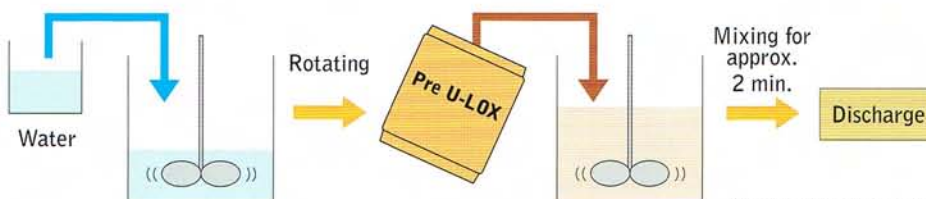
The Relationship between Age and Compressive Strength (JHS312) (老化和压缩强度的关系)



The Relationship between Compressive Strength, Bending Strength and Tensile Strength (压缩强度和拉伸弯曲强度的关系)



HOW TO USE (使用方法)



\*Measure water quantity with accuracy.

\*Pre U-LOX should be gradually added.  
\*Do not leave lumps of the mortar.

\*It should be checked that the consistency of the mortar is between 6 and 10 seconds.



Package : 25kg / bag

### CAUTIONS FOR USE

- ① The temperature for mixing should be between 5 and 35°C . In case the atmospheric temperature is high such as in summer season, the product should be stored in a place as cool as possible and should be mixed with cooler water for the temperature of the mixed material to be less than 30°C .
- ② The mixing should be thoroughly and uniformly carried out with a mechanical mixer for about 2 minutes. Never use a mixer with aluminum blades to avoid extraordinary expansion caused by torn aluminum.
- ③ Surely check the filled states during pouring work. Wet curing should be carried out after pouring.
- ④ The applied place should be cured avoiding direct sunshine.
- ⑤ The appropriate curing should be carried out at places where the surface of the mortar exposes or where the restraint for mortar is not enough since cracks caused by dry shrinkage may occur.
- ⑥ Pre U-LOX should be stored in a dry place, and it should be put on pallets and covered with plastic sheets to avoid water, moisture, etc.
- ⑦ Pre U-LOX should not be used for other purposes than mentioned in this brochure.

### SAFETY INSTRUCTIONS

- ① Pre U-LOX should be used following the instructions mentioned in this brochure.
- ② The product shows alkalinity similar to ordinary Portland cement, so that in application, use such tools as rubber gloves, goggles, a mask, etc. to protect eyes, nose, skin and clothes.
- ③ When the product gets into eyes, clean with clear water and see a doctor.
- ④ Skin may get irritated by the contact of the product unless immediately rinsed off.
- ⑤ Washing hands and a gargle should be done after work.
- ⑥ **KEEP OUT OF REACH OF CHILDREN.**

## U-LOX Family

### Pre U-LOX Super

Early-strength  
Type  
(超快速  
硬化型)



Pre-mixed Type  
25kg / bag

For urgent works,  
works in the cold  
latitudes, bridge  
support, machine  
foundation, etc.

### Pre U-LOX Pad

For padding  
(充填物型)



Pre-mixed Type  
25kg / bag

For Iron Framework,  
Padding mortar for  
Machine installation,  
etc.

### Pre U-LOX M

Heat-Moderate  
Type  
(低発熱型)



Pre-mixed Type  
25kg / bag

For Bridge shoe,  
machine foundation,  
base for iron  
framework, anchor  
sleeves,  
reinforcement for  
earthquakes, etc.

### U-LOX Cement

Slurry Type  
(泥漿型)



Pre-mixed Type  
25kg / bag

For filling small  
space, Anchor  
sleeves, Backfilling,  
etc.

### Pre U-LOX LC-MIX

For underwater  
works  
(水中不分离型)



Pre-mixed Type  
20kg / bag

Including an additive  
to prevent materials  
segregation in water.

### Pre U-LOX HW

Heavy-weight  
Mortar  
(重層型)



Pre-mixed Type  
25kg / bag

For Shielding  
concrete structures  
at nuclear facilities,  
extra-big  
foundations, etc.



Taiheiyo Materials Corporation

Aomi Frontier Bldg., 15F. 2-4-24, Aomi, Koto-ku, Tokyo 135-0064 JAPAN Tel: +81-3-5500-7518

URL <http://www.taiheiyo-m.co.jp/en/>

International Business Department