

Messrs. NAKS

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## Guarantee term of welding consumables

### 1. Covered electrode

The guarantee term of covered electrodes is within 2 years from the manufacturing date, in case they are kept under the storage conditions as shown in par. 4 and dried before welding under the recommended conditions by KOBE STEEL, LTD.

Covered electrodes whose guarantee term has expired; that is, more than 2 years after its manufacturing date may be used if desired by the customer provided they are surely dried before welding and have fulfilled the following conditions. However, KOBE STEEL, LTD. will not be responsible for whatever consequences that might result from using the electrodes :

- (1) Physical and chemical changes are not recognized on the outer appearance of covered electrodes.  
(Ex. rust on core rods, color change of covering)
- (2) Abnormal usability is not recognized during the welding performance.  
(Ex. Drop of covering or another unfavorable phenomenon is not recognized during welding in actual welding conditions and positions.)

### 2. Flux for submerged arc welding

The guarantee term of fluxes for submerged arc welding is within 2 years from the manufacturing date, in case they are kept under the storage conditions as shown in par. 4 and dried before welding under the recommended conditions by KOBE STEEL, LTD.

Fluxes whose guarantee term has expired; that is, more than 2 years after its manufacturing date may be used if desired by the customer provided they are surely dried before welding and have fulfilled the following conditions. However, KOBE STEEL, LTD. will not be responsible for whatever consequences that might result from using the fluxes :

- (1) Physical and chemical changes are not recognized.  
(Ex. caking, color change, etc.)

- (2) Abnormal usability is not recognized during the welding performance.  
(Ex. Defects on bead appearance or pits are not observed.)

### 3. Solid wire, flux cored wire or filler metal

The guarantee term of solid wires, flux cored wires or filler metals is within 2 years from the manufacturing date, in case they are kept under the storage conditions as shown in par. 4.

Solid wires, flux cored wires or filler metals whose guarantee term has expired; that is, more than 2 years after its manufacturing date may be used if desired by the customer provided no physical and/or chemical changes such as rust, discoloration etc. on the surface of the wires are observed. However, KOBE STEEL, LTD. will not be responsible for whatever consequences that might result from using the wires or filler metals.

### 4. Storage condition of welding consumables

#### 4-1 Place and Condition for Storage

- (1) Welding consumables should be stored in a warehouse free from rain, snow, dew, etc.
- (2) They should not be put on floor directly but on a wooden pallet.

It is desirable that they are stored more than 10cm-high from floor level and more than 10cm apart from walls of warehouse.

- (3) It is desirable that they are stored in a less humid place.

(Temperature:  $\leq 30^{\circ}\text{C}$ , Relative Humidity:  $\leq 80\%$ )

- (4) They should be kept away from the atmosphere such as sea breeze or  $\text{SO}_2$  gas which makes them rusty.

#### 4-2 Package

Package should be kept in the same condition as packed by manufacturer until just before unpacking.



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Quality Assurance Section  
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