

# SAR-UW

## Underwater Ceramic Putty

### GENERAL DESCRIPTION

**SAR-UW** is an underwater curing version of SAR used for rebuilding areas underwater or where the component needs to be put back into underwater service before full cure. Applicable to both fresh and saltwater service.

### FEATURES

- Excellent resistance to entrained solids and abrasion
- Very good chemical resistance
- Excellent temperature and thermal shock resistance
- Extended pot life
- May be applied up to thickness of 1 inch or more

### PACKAGING

1 kg. and 4 kg. units

### COVERAGE

**SAR-UW** is a trowel-on rebuilding compound and can be applied up to 1 inch/coat. Thicker applications can be achieved by multiple layers. Theoretical coverage at 40 mils is 31 cubic inches per kg.

### MIXING RATIO

2.6 parts base (B) to 1 part (A) hardener by weight  
1.4 parts base (B) to 1 part (A) hardener by volume

### POT LIFE

For a 1 kg. unit, mix at 70°F, pot life is approximately 40 minutes. Higher temperatures or larger mass will shorten this time, lower temperatures or smaller mass will extend it. Pot life can also be extended by spreading the mass out to dissipate heat.

### COLORS

**SAR-UW** is grey in color.

### TECHNICAL DATA AND INFORMATION

#### Basic Chemical Resistance at Room Temperature:

Inorganic Acids	Good
Organic Acids	Good
Solvents	Good
Alkalis	Excellent
Salts	Excellent
Alcohols	Excellent
Hydrocarbons	Excellent

#### Typical Physical Properties of Cured System:

Density	1.59
% Solids	100
Flexural Strength @ 70°F	16,500 psi
Tensile Strength @ 70°F	8,500 psi
Tensile Shear @ 70°F	2,500 psi
Max. Dry Operating Temp	250°F
Operating pH Range	2.5-14.0

### SURFACE PREPARATION

- Material should be applied to a firm, clean, and abraded surface.
- Best results will be obtained by abrasive blasting the surface.
- If blasting is impractical, a grinding wheel, needle gun, or very stiff wire brush may be used.
- Clean greasy, oily or waxed surfaces with suitable solvent before applying material.

### MIXING

Mix ALL of Part A with ALL of Part B. Mixing may be done on a large mixing board or container large enough to hold both the base and hardener. The selected mixing surface must be clean and dry. Mix the material thoroughly until no streaks of any kind are visible. If materials are cold, warm them to 70°F before mixing.



QUALITY SYSTEM  
REGISTERED TO  
ISO 9001:2000



NSF-ISR's Registration Program  
is Accredited by Member of the  
IAF MLA for QMS.

## CLEANUP

All mixing and applications tools should be immediately wiped or scraped clean when finished with using.

## APPLICATION

**SAR-UW** is best applied with a squeegee, trowel or the plastic applicator supplied with the kit. Press material thoroughly into substrate and insure a completely wetted out surface. Build up to the required thickness with a second pass. Large cracks or holes should be bridged with glass or metal cloth. Reinforcement should be overcoated.

For best results, do not apply:

- When temperature is below 50°F.
- When there is oil on the surface.
- To unprepared surfaces.

## OVERCOATING

For pinhole control and/or thicker buildup, two or more coats may be employed. **SAR-UW** may be overcoated with other **DUROMAR** materials such as **EAC** or **EXP** for enhanced smoothness or increased chemical resistance. Overcoating may begin as soon as the first coat is firm enough to accept a second coat. In high humidity or cold temperatures a blush may develop which should first be wiped down with clean water. **Do not overcoat if used underwater.** The following table is an approximate guide to the earliest and latest times an overcoat may be applied:

### SAR-UW Overcoating Window

55°F	70°F	80°F
3-8 hrs.	2-6 hrs.	1-4 hrs.

At 70°F, if 24 hours have elapsed or the material is dry to the touch, it must be roughened before overcoating. The preferred method is a light abrasive brush blasting. Other treatments are light sanding, grinding or wire brushing.

## Q/C

The material should be visually inspected just after application and touched up where necessary. Spark testing can be performed when the material is used above water. Conventional means of Q/C cannot be performed underwater. Therefore extreme care must be used when inspecting the surface.

## FORCE CURING

Force cures are recommended for elevated service temperatures, as both the physical and chemical properties are enhanced. Force curing should not start until material has firmly set.

Recommended Force Cure Schedule:

- 1 hour at 250°F
- 4 hours at 180°F

## STORAGE

Store in dry area in closed containers between 50°F and 110°F. Shelf life at these conditions is greater than one year.

## HEALTH AND SAFETY

READ AND UNDERSTAND ALL MATERIAL GIVEN IN THE MSDS SHEETS BEFORE USING THE PRODUCT.

**SAR-UW DOES NOT CONTAIN ANY FLAMMABLE MATERIAL OF ANY KIND. HOWEVER, THE MATERIAL IS COMBUSTIBLE. IN THE EVENT OF A FIRE, DRY POWDER, FOAM, OR CARBON DIOXIDE FIRE EXTINGUISHERS SHOULD BE USED. FIRE FIGHTERS SHOULD WEAR RESPIRATORS.**

USE PROTECTIVE GLOVES AND EYEGLASSES WHEN USING.

USE IN AREAS OF GOOD VENTILATION.

## LIMITED WARRANTY

All recommendations covering the use of this product are based on past experience and laboratory findings. Methods or conditions of application and use of the product are beyond our control. We assume responsibility only for the uniformity of our product within normal manufacturing balances.

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