

## TECHNICAL DATA SHEET: **SILBOND 01**

### PRODUCT DESCRIPTION

**SILBOND 01** are a range of inorganic sand binders for the Co<sub>2</sub> process used in all ferrous and non-ferrous foundry applications. They are suited both for high production automated cores as well as hand ramming applications. **SILBOND 01** is a low viscosity binder which mixes much more easily with sand and reduces binder level by 10-40%, when compared to conventional silicate. **SILBOND 01** provides rapid hardening rate, shorter gassing time, higher strength and better core shelf life even under difficult damp conditions. Mixed sand will not dry out as rapidly as conventional silicates. Presently the following grades **SILBOND 01** are available in our range categorized into two different grades –

- **SILBOND 01 A** – High performance binder cum collapsibility agent.
- **SILBOND 01 B** - Moderate performance.

### HOW TO USE

**SILBOND 01** may be mixed with clean, dry, clay free sand at rate of 3-5% of the sand weight, either in a batch mixer or continuous core sand mixer for uniform mixing. However the exact percent of **SILBOND 01** required depends on the foundry practice. Since the product is less viscous, mixing time of 90-120 seconds is sufficient. The sand then possess better flowability, enabling better compaction leading to improved surface finish and moisture resistance. The mixed sand is then rammed as desired for core making/mould making. Carbon dioxide is then passed in cores/moulds using similar techniques practiced in conventional Co<sub>2</sub> process i.e., at same pressures and flow rates but quantity of gas may be reduced upto 30% depending on the final strength required.

### INDICATIVE SPECIFICATIONS

PROPERTY	RANGE	
	<b>SILBOND 01 A</b>	<b>SILBOND 01 B</b>
PRODUCT NAME	<b>SILBOND 01 A</b>	<b>SILBOND 01 B</b>
Appearance	Liquid	Liq uid
Colour	Blue colour	Colourless
Specific gravity	1.5-1.55	1.5-1.55
B4 cup Viscosity	2.4-2.45min	2.5-3min
Shelf life	6 months	6 months

### PACKING DETAILS

**SILBOND 01** is supplied in 50 kg carboys. The product should be stored in a cool and dry place.



## MATERIAL SAFETY DATA SHEET: **SILBOND 01**

- 1. CHEMICAL IDENTITY**  
Chemical Name : Inorganic additives  
Chemical Classification : Mixture of minerals.  
Trade Name : SILBOND 01 A , SILBOND 01 B.
- 2. PHYSICAL AND CHEMICAL DATA**  
Appearance : SILBOND 01 A is a blue colour liquid while SILBOND 01 B is colourless liquid  
Physical state : liquids  
Odor : Odorless
- 3. FIRE & EXPLOSION HAZARD DATA**  
Flammability : No  
Auto Ignition Temperature : None  
Corrosive Material : No  
Explosive Material : No
- 4. REACTIVITY DATA**  
Chemical Stability : Stable  
Incompatibility with Other materials : Data not available  
Hazardous reaction product : None
- 5. HEALTH HAZARD DATA**  
Route of Entry : Skin  
Effects of Exposure : Constant exposure and inhalation cause mild irritation to the nose, eyes and skin. Wash the affected area with lot of water and consult a doctor.
- 6. PREVENTIVE MEASURES**  
Personal protective equipment : Avoid direct contact with hards, use gloves wherever possible.  
Handling & Storage precautions : Keep in a cool and dry place.
- 7. EMERGENCY & FIRST AID MEASURES**  
Fire : Use water.  
Spillage : Wash away the spilled material.
- 8. HANDLING & DISPOSAL**  
Empty Carboys : Empty carboys may be sold as scrap. Empty carboys may retain residual quantities of the product. They are therefore hazardous if used directly for storing food stuffs or other materials meant for human and animal consumption
- 9. MANUFACTURER / SUPPLIER DATA:**  
Name : Quality Technologies Private Limited  
Address : No.34, Rd. No.1, IDA Mallapur, Nacharam, Hyderabad – 500 076.  
Telephone : 040 27153888, 27155828  
Fax : 040 27152567  
e-mail : info@qtecindia.com
- 10. DATE OF INFORMATION** : 01.01.2008.

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