

## Max-Lock – Composite Centralizer

The Max-Lock is a two-piece, low friction and abrasion resistant, all composite tubing centralizer. The part is locked in place, axially and radially, by injecting a modified structural epoxy system into a profiled cavity between part and customer tubular, thereby eliminating the need for stop collars or grub screws.

The system is field proven in some of the worlds most challenging downhole environments.



Max-Lock Shell: Proprietary carbon fiber composite with low friction, low wear Kevlar ceramic surface layer.

Pipebond: Structural highly modified two-component epoxy system bonding agent, supplied in easy to use cartridges with static mixer nozzle.

## System Properties

| Technical Value                           | Metric Units   | U.S. Units                               |
|---|--|--|
| Shear Resistance – Push test one Max-Lock | > 65180 Kgs  | > 144782 Lbs                             |
| Compression Resistance                    | > 214 Mpa  | > 31886 Psi                              |
| Adhesion Strength                         | > 40 Mpa   | > 5900 Psi                               |
| Anchor Profile For Sand Blast             | 40 Microns   | 1.6 Mils                                 |
| Temperature Resistance                    | 180°C (Higher Resistance with Post Cure)                                   | 356°F (Higher Resistance with Post Cure) |
| Abrasion Resistance Tabor CS 17           | < 1 Mg Loss  |  |
| Impact Resistance – 10m Drop Ball         | > 112 J  |  |
| Abrasion Resistance 100Kg 1Hr             | Max-Lock weight loss 1.12 g (Steel weight loss under same parameter 2.4 g) |  |
| Friction Coefficient WBM                  | <0.08 Steel / <0.15 Sandstone  |  |
| 100° C Water Resistance                   | Weight Gain after 1 Hour < 0.02%   |  |
| Hardness (Shore D)                        | 90   |  |

## Installation & Handling



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Step 1 – Prepare Pipe Surface Mechanical or Blast Minimum Anchor Profile 40 µm Step 2 – Install parts over pipe • Apply Spacer & Vacuum Sealing Tape • Insert tubes into entry & exit ports

Step 3 - Vacuum Inject bonding agent

Site based Installation - Carried out by Maxwell qualified personnel.

Storage - Bonding Agent should be kept sealed in their original cartridges when not in use, and stored in a cool, dry place (0°C - 40°C).

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