

# ECS setting the standards in pressroom solutions

Date 21/06/2013

## The Curse of Calcium

Calcium deposition on printing blankets and rollers can be an exasperating problem. It can lead to too loss in production time, poor quality print and worst of all reduce the life time of the blankets and even damage the printing machine itself.

People living in hard water areas are more than familiar with the problems of limescale build up in kettles and showers. The hard white deposits build up quickly and can prove almost impossible to remove.



There are many theories on the origin of calcium build up on a printing press and unfortunately there are many sources of calcium. Tabulated below are three of the main causes of calcium build up and methods that can be used to reduce the problem.

Problem	Solution
Hard Water (dissolved Minerals in the water source)	Purchase demineralised water as the source for your dampening system.  Fit an RO (Reverse Osmosis) unit to demineralise your own water source.  Use Fountain Solutions with Calcium removing agents (Sequestrants/Chelators).
Inks containing mineral fillers, particular observations have been made with magenta units for this reason	Try alternative ink systems
Paper	Many substrates are sized using calcium carbonate. Calcium Carbonate size is loose and can easily deposit onto components it comes into contact with. The more expensive papers use china clay as the sizing agent which can minimize the potential build up.

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### The Curse of Calcium

Despite all the precautionary adjustments made to reduce calcium it can often still create a significant problem.

Our response was to analyse the cleaning procedure used and see if we could formulate a washing system which would resolve the problem. As is our philosophy we like to keep everything as simple and straightforward as possible.

For existing heavy deposits of calcium these are difficult to remove and a strong acidic solution is required to give a deep cleanse. We have created a single strong gel compound with penetrating agents to quickly revive and scrub the surface. The gel is the best solution for acidic solutions as it avoids splashing and keeps the fluid concentrated without running off and being difficult to manage.

For this we recommend our **C770 Calcium Removal Gel**.

### The Ultimate System

Calcium removal by using strong removers and powerful cleaning solutions is one method of control but with our new wash system it takes a more proactive view of the problem.

Calcium deposits are absorbent and the printing environment is oily due to inks, resins and hydrocarbon washes continually circulating around the system.

The deposits have a water proofing effect on the press environment, rendering washing solutions and cleaning agents ineffective.

Our system uses combination therapy.

**STEP 1. C655 Calcium Removal Wash** will act exactly like a conventional wash up system but has added components to create deep penetration into the deposits and carries special ingredients to break up the deposits from inside.

**STEP 2 C702 Water Wash Additive** uses an active aqueous wash component which follows the wash and breaks down any hard deposition.