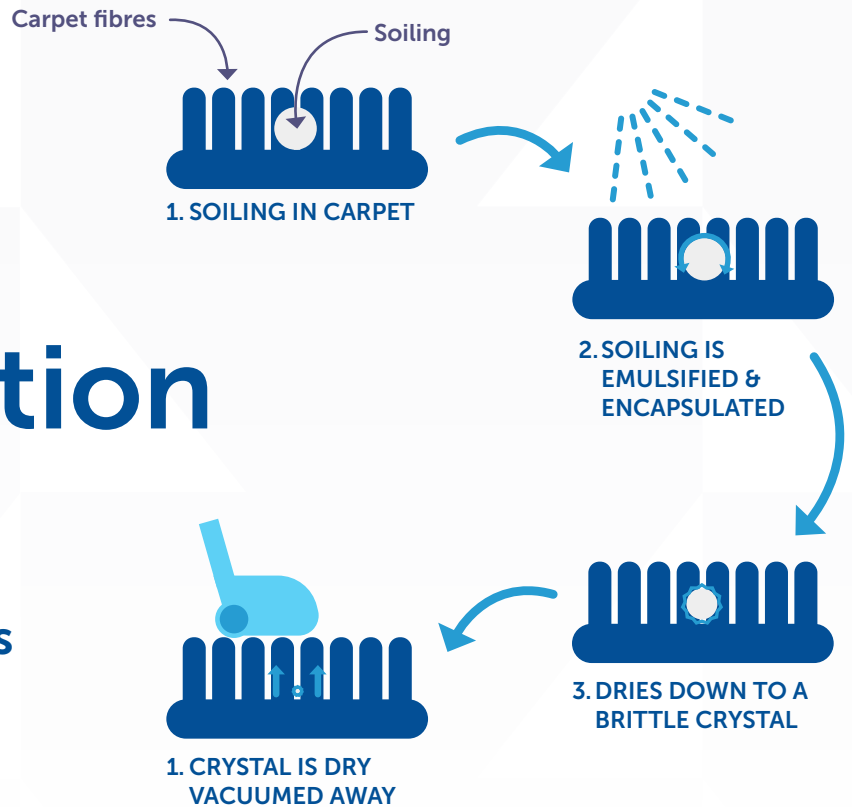




Deep Dive into Encapsulation Cleaning

Webinar White Paper





Encapsulation Cleaning

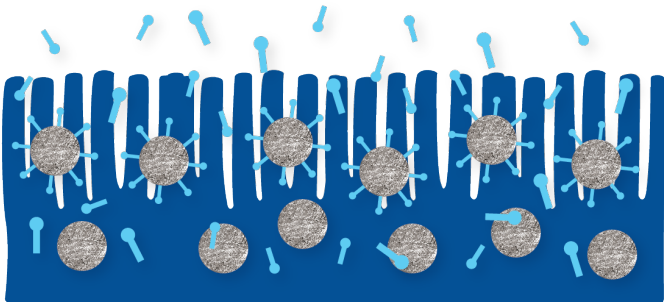
Technology & Procedures

ENCAPSULATION TECHNOLOGY

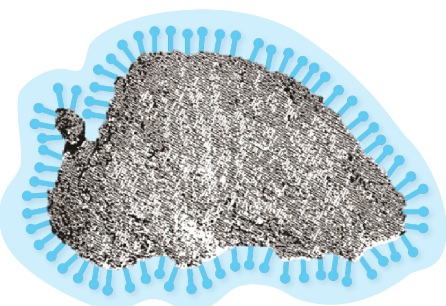
Encapsulation represents a major advancement in carpet cleaning, utilising specialty polymers and detergents that form a brittle structure as they dry.

Unlike traditional surfactants that can attract and retain soil, encapsulation chemistry binds detergent and soil residues into a dry, brittle film that prevents re-soiling and is easily removed by vacuuming. This method eliminates the need for wet extraction, making it ideal for commercial cleaning with less equipment and quicker turnaround.

1. Encapsulation technology



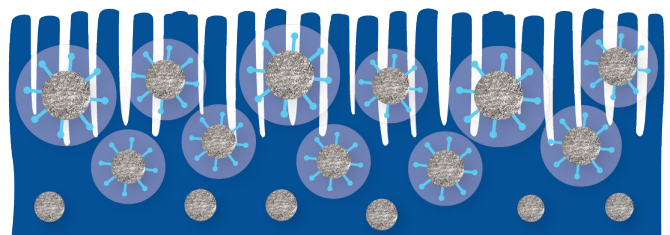
2. The detergent/soil molecule is encapsulated.



BENEFITS OF ENCAPSULATION CLEANING

- Eliminates the need for wet extraction.
- Ideal for large commercial areas with quicker, less equipment-intensive cleaning.
- Encapsulation chemistry prevents re-soiling and improves appearance.
- Products with fluorinated polymers enhance anti-resoiling and prevent wick-back.
- Significantly lower usage of water, electricity, equipment, man hours.

2. The detergent/soil molecule is encapsulated.



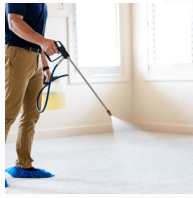
3. The brittle, dried encapsulated soil is removed by regular vacuuming.



ENCAP CLEANING PROCEDURE



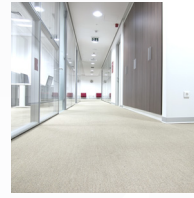
Vacuum



Prespray Entire Area



Agitate



Dry



Post Vacuum

TWO SIDES OF AN ENCAPSULATOR FORMULATION

Part One

The first being its initial ability to emulsify soiling and create a clean appearance. This is the lower cost end of the formulation.

Part Two

The second being the formulation's ability to dry the emulsified soiling & detergent to a brittle residue which can be vacuumed away. This is the expensive end of the formulation.

This second side to the formulation is not as visual as the first and hence most encap products tend to get judged on their initial cleaning performance.



WOOL VS WATER TENSION

Watch how a wool fibre reacts to water. Then see how it changes when one drop of liquid emulsifier is added to the water - a simple demonstration of why emulsifiers are important.

THIRD PARTY CERTIFICATIONS

WoolSafe & CleanSeal

- Key Testing Criteria
- pH and buffering profile
- Effect on colour fastness of fibres
- Re-soiling characteristics
- Cleaning Performance

Proof of quality in third-party qualifications



ENCAP PRO

Colour: Orange

pH: 8

Fragrance: Lemon Tea Tree

Dilution: 1:32

Safety Profile: Non-hazardous



Economical Formulation

A cost-effective option, ideal for low pile carpets in commercial settings.



Enhanced Soil Release

Dries to a finer, drier residue, allowing for more effective soil release during vacuuming.



Specialty Polymer Anti-Resoiling

Contains specialty polymer agents that help retard re-soiling and maintain a cleaner appearance longer.



Extended Soil Release

Continues to release soil from carpet fibers over 7-14 days, providing enhanced carpet appearance and cleanliness during this period.



ENCAP PLUS

Colour: Blue
pH: 8
Fragrance: Powder Fresh
Dilution: 1:32
Safety Profile: Non-hazardous



Specialty Polymer Anti-Resoiling

Contains specialty polymer agents that help retard re-soiling and maintain a cleaner appearance longer.



Enhanced Soil Release

Dries to a finer, drier residue, allowing for more effective soil release during vacuuming.



Premium Performance

Offers superior initial cleaning performance, especially noticeable on denser and longer pile carpets.



Extended Soil Release

Continues to release soil from carpet fibers over 7-14 days, providing enhanced carpet appearance and cleanliness during this period.



ENCAP FINE FABRIC

Colour: Golden/Tan
pH: 6
Fragrance: Powder Fresh
Dilution: 1:4
Safety Profile: Non-hazardous



Releases Upholstery & Rug Soiling

Contains ingredients which specifically target body oils and fats, beverage and food stains and organic soils.



Fibre Safe

Safe for use on all water cleanable fibres including silk, cotton, linen, wool, stain-resistant nylon and all synthetic fibres.



Leaving Fabrics Chemical Free

Encap Fine Fabric residues left in the upholstery or rug fibres dry down to a light, brittle crystal which quickly breaks away from the fibre and is left chemical free.



Dye & Fabric Stability

The mildly acidic character of Encap Fine Fabric helps prevent cellulosic browning and stabilizes fibre dyes.

ENCAP BOOSTERS & SPOTTERS

It's important to note that encapsulation chemistry can be easily disrupted by the addition of products like boosters, spotters, and deodorisers. These can interfere with the polymers that bind soil, reducing effectiveness and potentially leading to re-soiling. For optimal results, it's best to avoid mixing products.

The only boosters and spotters that are compatible with the encapsulation presprays are: Perox, Actichem VDS, Conquer, Conquer O2, Spotaway U.

QUESTIONS & ANSWERS

Would you recommend a CRB machine with encap?

Yes, absolutely! CRB machines work very effectively with the Encap process and deliver great results. While machines like Duplex or other systems can also be used, the CRB stands out for its effectiveness. For specific comparisons with machines like the Orbot or Cymex, it's best to consult your equipment supplier for tailored advice.

Can you explain the proprietary protective layer that your Encap products leaves on fibres?

Of course! The Encap proprietary polymer is not the same as carpet protection. While traditional carpet protection creates a semi-permanent layer, Encap leaves a brittle coating that breaks away gradually over several days (typically 5–8 days). This helps prevent resoiling without making the carpet feel brittle or crunchy. It's invisible to both you and your client but works behind the scenes to minimise wick-back and keep carpets cleaner for longer.

Can Encap Plus be used on synthetic and low-pile carpets?

Absolutely! Encap Plus is versatile and can be used on all carpet types, including low-pile and synthetic carpets. While Encap Pro is specifically designed for low-pile carpets and may be less effective on plush varieties, Encap Plus offers the flexibility to perform well across all carpet types.

How do you recommend dosing Encapsulation solutions into the machine to get the correct ratio?

You have two main options. First, determine the exact capacity of your machine's solution tank in litres and then calculate the amount of Encap Pro, Encap Plus, or Encap Fine Fabric required to achieve the correct dilution—such as 1:32 or 1:16. Alternatively, you can pre-mix the solution in a measuring jug or bucket before adding it to the tank. This ensures accurate dosing every time.

Can you over apply encap?

Not really, but it's important to avoid using excessively strong concentrations. While you can go as strong as 1:5 for spotting, it's best to stick to a 1:10 to 1:16 ratio for regular use. Over-application may make carpets feel slightly crunchy, but this will vacuum out over the next few hours or days.

The preferred method is dosing Encap through the solution tank on your machine, though a pump-up sprayer works

just as well (easily sourced from your equipment supplier). A helpful tip: when applying Encap, you should see a small trail of foam—just a few centimeters—behind the machine. If the foam breaks down shortly after, you've got the perfect application rate.

Is it best to pre-spray first or run Encap straight through the solution tank?

As mentioned earlier, I personally prefer running it through the solution tank. It's simple, efficient, and ensures consistent application.

How do you approach malodour cleaning in a dementia area?

Great question! We're currently developing an Encap solution with built-in odour neutralization. You're ahead of the curve, but stay tuned—exciting developments are coming in early 2025!

Can a carpet protector be applied over an Encapsulation solution

Unfortunately, no. Applying a carpet protector over an Encapsulation solution won't deliver optimal results. This is because the soiling encapsulated by the polymer is still sitting in the carpet fibres and hasn't been vacuumed away yet.

If you attempt to apply a protector at this stage, it will bond to the soiling rather than the carpet fibres, compromising its effectiveness. To achieve the best results, the carpet should be thoroughly cleaned using hot water extraction to remove any remaining soil before applying the carpet protector. This ensures a clean, bonded, and long-lasting protective layer.

What Encapsulation solution works best for cleaning pub carpets with heavy oils and grease?

Great question! Cleaning pub carpets with a high degree of oils and grease can be challenging for traditional encapsulation solutions. While we're working on advanced developments in this area, set to release in early 2025, for now I recommend using Encap Plus at a stronger concentration—around 1:16 or even 1:10 for severe cases.

For particularly soiled areas, pre-spraying with Actichem VDS will help break down the oils and grease, preparing the carpet for the encapsulation process. This combination delivers significantly better results in tough environments.

After applying the encap on the carpet should we allow a dwell time? If so how long?

The encap solution should be agitated directly after applying it to the carpet. Many carpet technicians prefer to apply it through the solution tank of their scrubbing machine which is ideal. The dwell time is achieved after the agitation is complete and as the carpet dries because it is not extracted out of the carpet.

I use encap pro on delicates like linen and cotton lounges or chairs. Usually find that if they're heavily soiled or stained, I won't achieve the results I do in comparison to a HWE. In saying that, I never really clean those material types using HWE. What is your recommendation for this situation?

When cleaning linen and cotton lounge chairs HWE is not recommended as you infer. We have found the following process to provide best results.

1. Prespray heavily soiled areas such as arm rests and back of head areas with Actichem VDS.
2. Apply Actichem Encap Fine Fabric diluted 1:16 to the whole chair including those areas presprayed with VDS.
3. Agitate with a cotton hand bonnet or upholstery brush. Some hand held rotary scrubbing machines are good for this.
4. Allow 10 minutes dwell time.
5. Using your HWE upholstery tool, vacuum only all the areas cleaned. Do not add water.
6. Dry bonnet the whole chair to ensure consistent drying. Brush to align fibres for cut pile fabrics

This system gives you the benefit of the HWE vacuum power whilst still maintaining a very dry clean.

FURTHER RESOURCES

- Knowledge Centre
- Webinar Replay
- Encap Plus PDS
- Encap Pro PDS
- Encap Fine Fabric PDS
- Conquer PDS
- Conquer O2 PDS
- Spotaway U PDS
- Actichem VDS PDS
- Perox PDS



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