LEATHER FINISHING

WITH EXPANDABLE MICROSPHERES

Make coatings and putties to upgrade hides and increase yield

OVERVIEW

Product Type
Expanded microspheres
Unexpanded microspheres

Main Benefits
Excellent filler capability
Good buffing properties
Low shrinkage
Soft touch finish

Applications
Base coats for covering defects
Base coats for filling cavities
Stucco for upgrading leathers

Expandable Microspheres

Leather damaged by bites, scars or thorn marks can be **repaired**, and **cavities** in the loose flanks of hides can be **filled** out with expandable microspheres.

Base coats and **stuccos** containing expanded microspheres offer good flexibility, low shrinkage and outstanding filling capability.

Unexpanded microspheres can be used for **filling** out the **cavities** in the loose flanks of hides to increase the yield.

Boud Minerals produce **dry expanded microspheres** in the **United Kingdom** to bring down costs, make production more environmentally friendly and improve product availability. This gives our **customers** more freedom in the choice of densities and packaging.

Repairing Damage

Base coats with dry expanded microspheres **cover defects** in hides and **increase bulk**. The **surface** of the treated hide will be uniform, with damaged areas appearing almost **equal** to **undamaged areas**. Base coats can be made by mixing the spheres into a binder, such as acrylic or polyurethane, or by diluting stucco.

Stucco is a putty-like coating paste is used for upgrading leathers with defects caused by Insects, scars, thorn marks. Stucco made with expanded microspheres has brilliant **buffing properties**, excellent **filling capacity**, good **flexibility**, **soft touch** finish and very **low shrinkage**.

The stucco can be diluted with water and/or binder to reduce the viscosity and make it suitable for **spraying** or **roller coating**. When reducing viscosity it is important mix thoroughly with a dissolver or powerful mixer, andto stir well just before use to prevent any 'creaming' of the low density microspheres. The top coat can be applied using standard techniques.

In **base coats** and **stucco** typically **1** to **3%** w/w dry expanded spheres are used. With densities as low as 0.025 g/cm³ an addition of **2%** w/w can make up about **one third** of the volume of the **mixture** and about two thirds of the **volume** of the **dried stucco**.

After applied stucco has dried for 12 to 24 hours, it can be buffed and de-dusted. Final finishing and embossing can be continued using traditional techniques.

Filling Out

Increasing yield

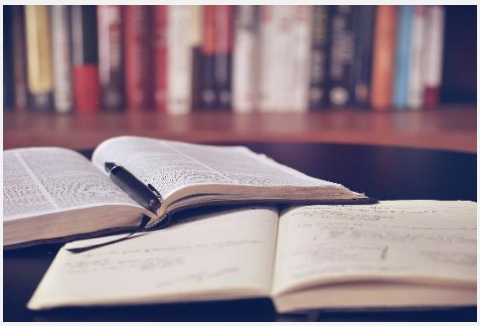
Unexpanded microspheres can be used to **penetrate** the **cavities** in the loose flanks of hides.

Usually, unexpanded microspheres are added at the retanning or fat liquoring stage then dried under vacuum at 70-90ºC.

When **exposed** to **heat**, the microspheres **increase** in size, up to **60 times** their original volume.

The cavities in the loose flanks are **filled**, **correcting defects** and increasing yield of the hide.

Best results have been achieved with wet unexpanded microspheres, at **1** to **5%** w/w dry content, pre-mixed in water before adding.



What's Next?

Further Reading

Our **Technical Guide – Properties of Expandable Microspheres** takes an in depth look at the properties of expandable microspheres. A great introduction if you are new to the world of expandable microspheres.

Lightweight fillers and putties have a variety of uses including automotive bodyfillers and fairing compouds. Find out how we worked with a customer to develop a filler suitable for use in a challenging climate in our **Case Study – Automotive Bodyfiller with Expandable Microspheres**.

For guidance on the best way to handle and mix dry expanded microspheres take a look at our **Technical Guide – Handling of Expandable Microspheres**.

Do you need help **choosing the right grade** for your application, **more information** or a **sample** to try?

We are always happy to help and answer any questions you may have. Please do not hesitate to contact us:

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