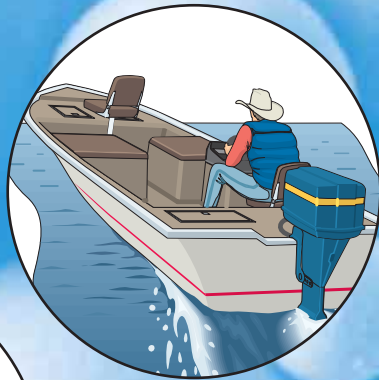


# EXPANCEL<sup>®</sup> IN POLYESTER



Boats

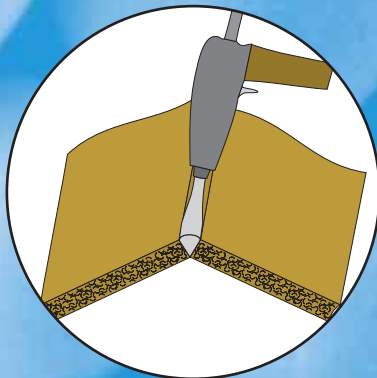


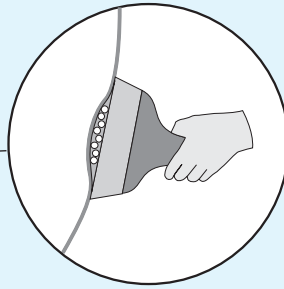
Cultured marble



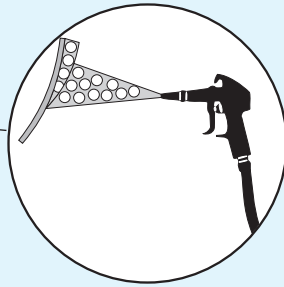
Spray-up application

Car-repair filler

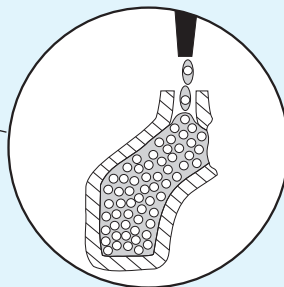
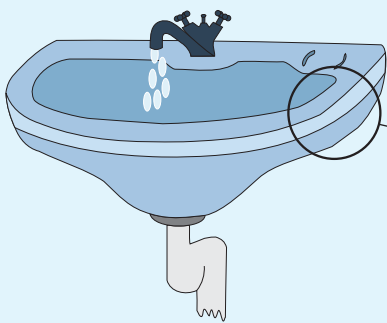




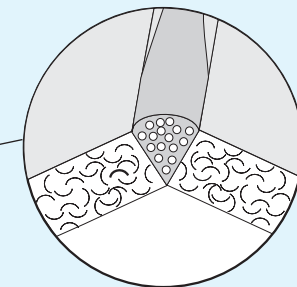
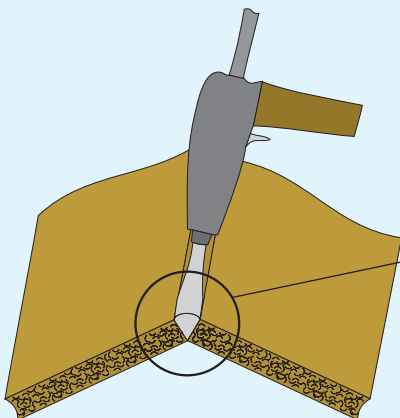
**Improved sandability in body fillers.**



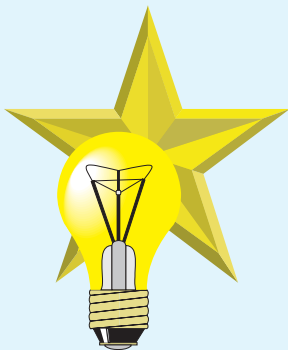
**Reduced weight in spray-up polyesters.**



**Reduced weight and improved resistance to thermal shock in cultured marble.**



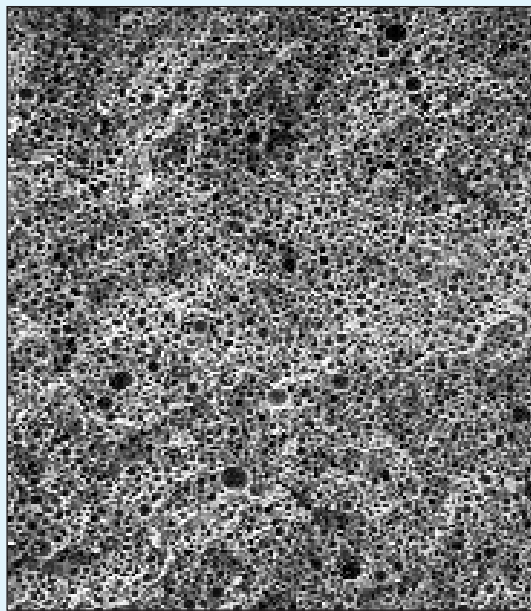
**Reduced weight in polyester bonding pastes.**



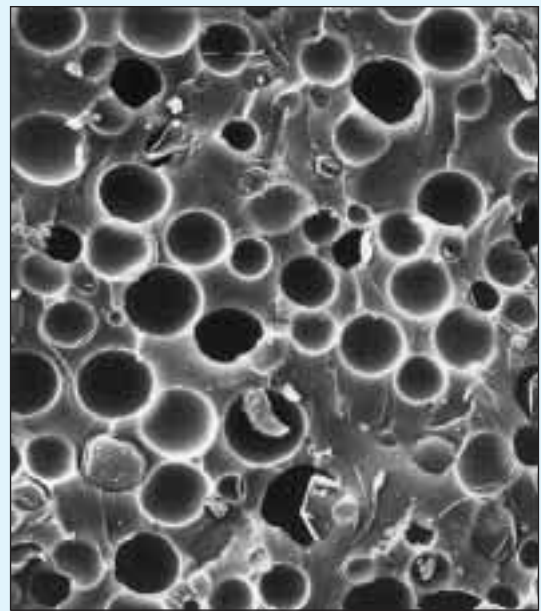
**What will be the next application?  
EXPANCEL might add that little extra  
to your product.**

EXPANCEL microspheres are used in a number of applications with unsaturated polyesters and in these types of applications the preexpanded grades are used. As the microspheres are resilient, they will not break during mixing or spraying. The use of EXPANCEL results in a fine-cellular foam with a closed cell structure.

## SEM-photos of the cross section of a cured polyester sample.



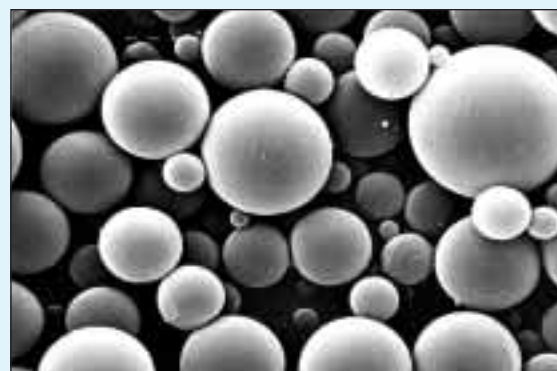
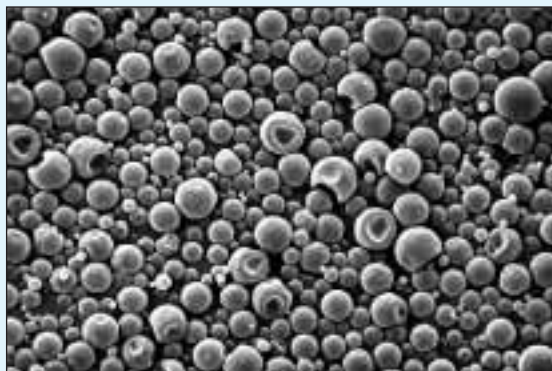
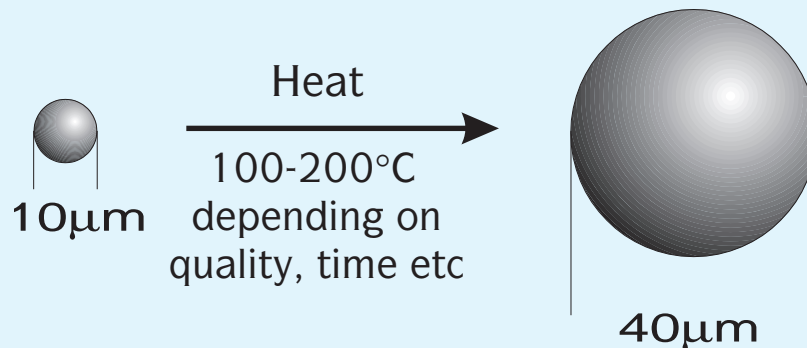
1000 μm



100 μm

EXPANCEL, the expandable microsphere, is a product with unique properties. A drop of liquid hydrocarbon is encapsulated by a gasproof, polymeric shell. When exposed to heat, the shell will soften and the hydrocarbon will gasify causing the microsphere to expand. Before expansion the typical diameter is 10–12  $\mu\text{m}$  and the density is 1000–1200  $\text{kg}/\text{m}^3$ . During expansion the diameter increases to 40–50  $\mu\text{m}$  and the density drops to 30–40  $\text{kg}/\text{m}^3$ .

EXPANCEL is available both as unexpanded and as expanded microspheres. More information regarding different microsphere products is available in our Product Specifications.



Handling instructions and technical service are available upon request.

Using EXPANCEL will help you achieve the following properties:

- Reduced density
- Better sandability
- Improved resistance to thermal shock
- Good insulation
- Reduced costs



For further information, please contact:

**Expancel**  
Box 13 000  
S-850 13 Sundsvall, SWEDEN  
Tel + 46 60 13 40 00  
Fax + 46 60 56 95 18