3M Co.’s best spokespeople?
Its customers
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CHICAGO — The 3M Co. is letting its customers do the talking at NPE2009 (Booth W121034).

The St. Paul, Minn., firm has exhibited its glass microspheres products before — but this time it gave floor space to companies that are developing applications containing 3M glass “bubbles.”

The idea, said Lou Lundberg, 3M’s market development manager, is to show the wide range of possibilities for the microspheres as a replacement for other fillers. The underlying theme of all the applications exhibited is the desire to reduce weight.

Noble Polymers of Grand Rapids, Mich. — a 3M customer — has developed a low density polyolefin resin formulation using 3M glass bubbles that can reduce the weight of polyolefin plastic parts by up to 20 percent.

Tim Patterson, Noble business unit manager, held up the seat of an office chair that shows the formulation in action. The microsphere-filled seat weighs 2.05 pounds, compared with a previous 2.25-pound talc-filled version.

Patterson said another project involves a toolbox molded in high density polyethylene, which has an 11 percent weight reduction through using microsphere filler.

Another customer at the 3M booth, Continental Structural Plastics of Troy, Mich., is dealing with much bigger parts. The company makes sheet molding compounds used in John Deere tractor covers, where use of the 3M microspheres has cut 5 pounds from the weight of a part that had weighed 27 pounds.

Michael Siwajek, manager of materials development at CSP, said nanoclay also had been tried out, but the microspheres provide a superior surface. The company is now working with engineers at various automotive groups to develop a specification for Class A surface materials that contain the microspheres.

3M spokesman Lou Lundberg said another auto application on display is pillar trim molded by Hanil E-Hwa Co. Ltd., a Tier 1 supplier to Hyundai. In the part, the glass microspheres are optimised with talc and glass-fiber content to cut weight by 10 percent.