Throw and Go Absorption of Transformer Oil
Test and Review by Isaiah Brooks PHD

Experiment Description

We have characterized the ability of Throw & Go Professional to absorb spilled transformer oil. The experiment was done on a volumetric basis. Eight fluid ounces of Throw & Go Professional was added to eight fluid ounces of transformer oil, and allowed to absorb for two minutes. The transformer oil was quickly and completely absorbed. The total volume of the combination in the container was ten fluid ounces. The Throw and Go Professional had absorbed the oil internally and therefore a reduction of total volume was noted. An additional 4 ounces of Throw and Go Professional was added to the top of the container. The total weight of the combined Throw and Go Professional and oil products was 13.55 ounces. The container and contents were turned upside down on a smooth surface. No transformer fluid ran out of the Throw and Go Professional. The contents were allowed to sit for 1 hour. A small amount of transformer oil showed near the edge of the mass however it eventually withdrew back into the mass without manipulation.

Then, in a different flask, eight fluid ounces of a popular clay-based product was added to eight fluid ounces of the same transformer oil. It was mixed in to make sure the oil had opportunity to absorb. After ten minutes there was still four fluid ounces of unabsorbed transformer oil remaining on the top of the clay-based product. The total volume of the combination was twelve fluid ounces.

An additional 8 ounces of clay product was added, mixed then time allowed for absorption to occur. Oil again surfaced to the top of the clay product. Another 8 ounces of clay product was added to the container. This time the oil could be seen near the top layer however it did not surface. The contents were weighed: 1 lb 14.3 ounces. The container measured 25 ounces with both oil and absorbent combined. The container and contents were turned upside down on a smooth surface. Oil immediately began running out of the product. In 30 minutes the product lost 4 ounces of oil onto the slick surface. This oil that exited the absorbent was poured into a measuring container. Only half of the transformer oil was absorbed.

Conclusions

1. It will take less than half as much Throw & Go to absorb transformer oil, when compared to a clay-based product.

2. There was ten fluid ounces of the Throw & Go combination, compared to the twelve fluid ounces of the clay-based product combination. This shows that the transformer oil is absorbed internally within the fibrous structure of the Throw and Go Professional, while the clay-based product is limited to adsorption on the surface of the particles. This not only allows the Throw & Go to absorb more, it will retain the transformer oil more tenaciously.

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