Press Release

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PVA Löt- und Werkstofftechnik GmbH - Cooperation with Vaillant

(Wettenberg, July 1, 2013) – PVA Löt- und Werkstofftechnik GmbH, Wettenberg, a fully owned subsidiary of PVA TePla, is set to strengthen its existing cooperation with Vaillant GmbH, one of the world's leading heating technology companies. This cooperation has been running since 2005. For one of the latest products from Vaillant, the zeolite gas-powered heat pump, PVA Löt- und Werkstofftechnik GmbH is supplying the core assembly for the gas-powered heat pump, the zeolite heating module.

Thanks to the zeolite gas-powered heat pump for homes, the natural heat generation of the mineral zeolite (non-toxic, ecologically harmless, non-combustible) can be used with water for the purpose of heating for the first time. This new technology combines gas condensing technology, solar thermal technology and zeolite sorption (sorption = enrichment of a material within a phase or on a boundary surface) to create an efficient three-fold technology. With a total efficiency rate of 141%, Vaillant's zeolite gas-powered heat pump is the most efficient gas-powered heating system currently available on the market. The system thus makes an important contribution to reducing CO_2 emissions in building technology and achieving climate goals.

In the technologically demanding production of the heating module, which constitutes the core of the zeolite gas-powered heat pump, full use is made of the core areas of expertise of PVA Löt- und Werkstofftechnik GmbH such as vacuum technology, brazing technology and materials engineering. In the course of a complex vacuum heat treatment process, the zeolite-filled stainless steel module is treated in such a way that the residual gas bound in the zeolite is almost completely expelled and the zeolite achieves the activation state it requires for the heat pump process. In a brazing process performed in an integrated manner, the module is hermetically sealed and the process vacuum enclosed in the module. Thanks to this procedure, the activated zeolite can be permanently preserved in the module and it maintains its outstanding adsorption characteristics for many years. Since vacuuming and activation of the zeolite module is performed without valves

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etc., the module is also completely maintenance-free for its entire service life.

About PVA Löt- und Werkstofftechnik GmbH

PVA Löt- und Werkstofftechnik GmbH in Wettenberg and Jena is a highly specialized supplier of modern joining technology based on vacuum brazing. In addition, different types of heat-treatment work are performed in the vacuum furnaces. The company can look back on many decades of experience in vacuum brazing technology and heat treatment. The top-most goal is to enhance the customers' competitive edge by using modern materials and joining techniques. A holistic approach is always aimed at here, one that ranges from selecting the materials and process development right up to performing mass production in dedicated production facilities.

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