

APPLICATION STORY

tesa® ACX^{plus} Replaces Solvent-based Adhesives

When a domestic and industrial heating appliances provider was asked to manufacture a specific type of boiler, the company drew upon the expertise of the tesacoheion team to solve a major problem in the manufacturing process.

Application and Current Method

On this new application, a solvent adhesive was to be used on the boiler's inner and outer cases.

Customer Issue

Whilst the adhesive had an unknown curing time and presented health and safety issues due to its solvent content, its use would also incur significant capital outlay to set up extraction facilities in the factory.

Any alternative solution would need to perform well with powder-coated materials, whilst withstanding vibrations and temperatures as high as 120°C in operation.

tesa Assessment and Proposal

tesa's customer team, applying the principles embodied in its tesacoheion philosophy, considered the process as a whole and engaged with the customer in an assessment of 12mm tesa® ACX^{plus} 7076 as an alternative to the solvent adhesive.

tesa® ACX^{plus} 7076 consists of a high-performance acrylic system and due to its unique components it combines very good temperature resistance with outstanding cold shock resistance up to -40°C. Its viscoelastic, foamed core compensates for the different thermal elongation of bonded parts.

Outcome

As a result of the co-operation between the tesacoheion team and the customer, significant process and product improvements were realised.

tesa® ACX^{plus} 7076 can be applied quickly using the dispenser and is able to withstand the powder-coated process preceding painting of the boiler to a white finish.

Thanks to its viscoelastic properties, the tape also copes with mechanical stresses caused by vibration of the boiler unit in operation.

No capital expenditure to expel fumes is necessary, as tesa® ACX^{plus} also provides a healthier process for staff by virtue of being a 'cleaner' solution.

