

AQUENCE

The 3D Value Package



Excellence is our Passion

Innovative Products Ensure Quality and Efficiency

Henkel Offers High Quality 3D Adhesives

The innovative AQUENCE 3D adhesives have an excellent reputation worldwide. Beside their outstanding features, e.g. high heat resistance even at lowest activation temperature, they are available for different press types and a broad range of foils (e.g. high gloss).

AQUENCE 1C Adhesives

Henkel offers a broad range of AQUENCE 3D one-component (1C) 3D adhesives: From standard products to high performers, with the clear processing advantages of the 1C systems on the one hand and equal quality performance, as offered by 2C systems, on the other hand.

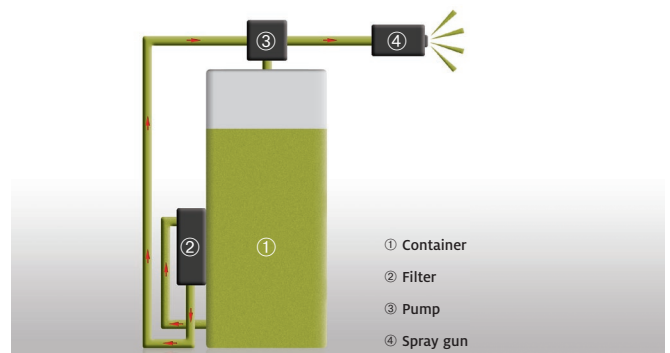
- » Wide range of activation temperature available – starting from 55°C
- » Process optimisation by using 3D CLEAN SYSTEMS



Development of AQUENCE 3D Adhesives

Process Advantages of AQUENCE 1C Adhesives

- » Increased productivity (no mixing)
- » Cost saving – no waste of mixed material at the end of the shift
- » Viscosity stable during the application process
- » Durable homogeneous spreading of the cross linker
- » Long storage time of pre-coated panels (2 days – 3 weeks)



3D CLEAN SYSTEM

AQUENCE 2C Adhesives

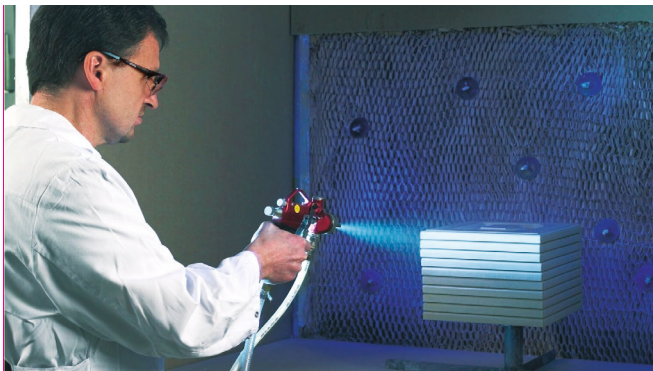
When using two-component (2C) AQUENCE 3D adhesives, the amount of cross linker can be varied as required – depending on the customer’s heat resistance requirements.

- » Wide range of activation temperature available – starting from 50°C
- » Highest heat resistance, adjustable according to the order
- » Cost optimisation via individual adjustment of the cross linker rate to the respective requirement (between 3 – 10% cross linker)

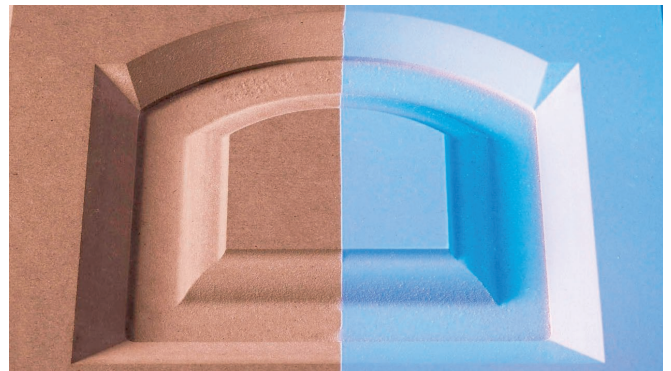
UV Scanning

The AQUENCE 3D adhesives are fitted with a UV tracer for immediate and easy checking of a proper adhesive application.

- » By using a standard UV lamp, the UV tracer becomes visible and shows the adhesive application clearly on the MDF (blue coloration)



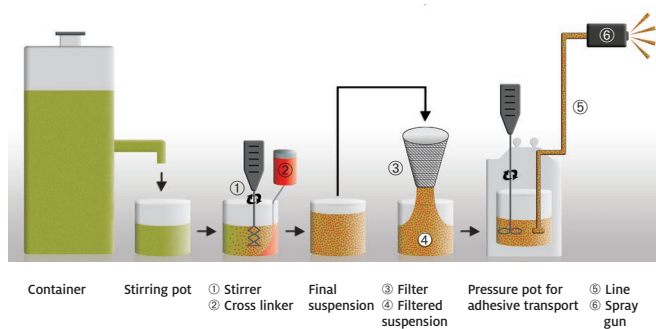
Processing of AQUENCE 3D adhesives



MDF-panel

Right half covered with adhesive
Left half without adhesive

Preparation of AQUENCE 2C Adhesives



Your Benefits

Whether you prefer 1C or 2C adhesives – we offer the appropriate solution. AQUENCE 3D adhesives help you to improve quality and productivity.

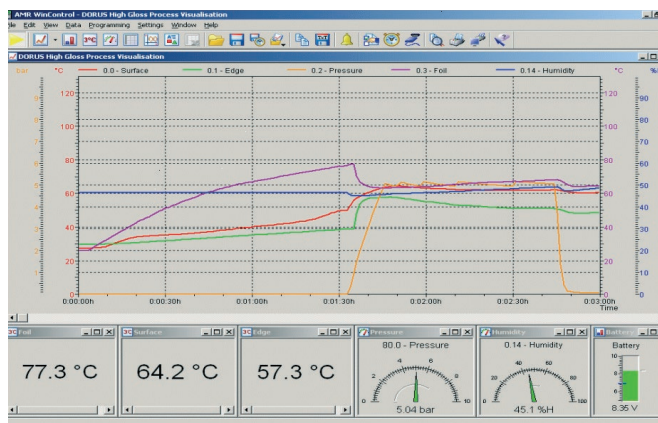
Optimising Processes and Ensuring Quality Special Henkel Tools Support You

Henkel offers 3D process improvements, which are optimally compatible with the AQUENCE 3D adhesives. We will provide an insight into the 3D Processing Systems.

3D PROFILER

The 3D PROFILER is a system for simultaneous, wireless monitoring of different processing parameters such as the temperature at/on edge, surface and foil, as well as the pressure and humidity below the foil. These process parameters are essential for high-end product quality.

- » Fast and safe adjustment of the press parameters to the different material combinations, e.g. high-gloss foils
- » Constant product quality
- » Minimisation of rejects
- » Reduction of customer complaints



PROCONTROL

The PROCONTROL is a continuous adhesive volume observation system for automatic spray lines. It checks and identifies deviations in the adhesive volumetric flow rate. If the measured quantity exceeds or undercuts the limits, the system transmits an optical and acoustic signal.

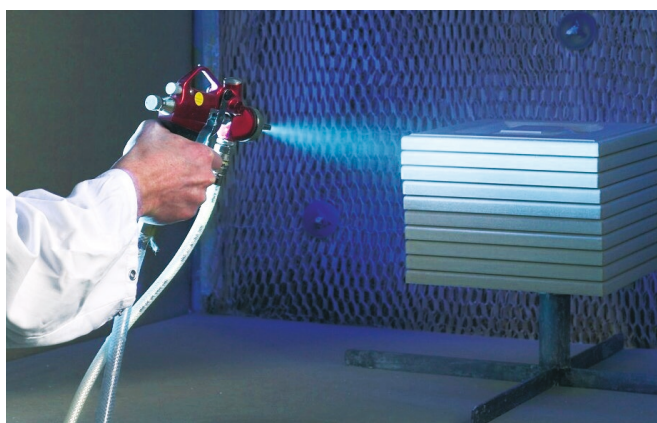
- » Constant and optimised adhesive spraying rate
- » Consistent quality of produced parts
- » Increase in productivity
- » Cost reduction due to less staff for supervision



3D SPRAY SYSTEM

The 3D SPRAY SYSTEM offers the optimised application of AQUENCE 3D adhesives.

- » Optimal distribution of polymers on the surface
- » Excellent surface characteristics due to minimal swelling of the substrate
- » Less overspray



3D CLEAN SYSTEM

The 3D CLEAN SYSTEM is a closed application system for AQUENCE 1C adhesives. The adhesive is applied directly from the original container to the spraying gun via an integrated membrane pump.

- » Increase in productivity due to fewer standstills
- » Improvement due to cleaner production
- » Less cleaning effort
- » Minimum adhesive waste



Your Benefits

The process supporting 3D tools contributes essentially to the optimisation of the customer's process by offering benefits, such as constantly high product quality, minimised rejects and increase in productivity.

Henkel Provides a Full Service Package Our Technicians Support You – On Site as Well

Henkel customers receive a complete and individual service package which supports the adhesive. Our long-term and worldwide experience is your advantage.

On Site Consulting

- » Comprehensive analysis of the current production process with focus on adhesive application
- » Development and assessment of possible improvements concerning adhesive application
- » Definition of suitable process optimisation and performance measures

On Site Start-up Support

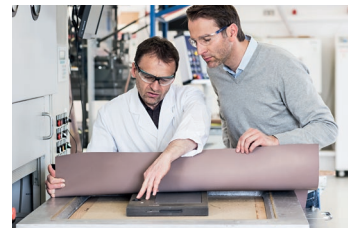
- » Technical support during production, start-up process by assistance of experienced Henkel specialists
- » A detailed start-up protocol is part of the Henkel service

On Site Trainings and Quality Control

- » Individual technical training service on customer's own production line by Henkel experts
- » Optimisation of process parameters for adhesives applications
- » Advice for trouble shooting
- » Support of Henkel experts on site on optimal processing of AQUENCE 3D adhesives
- » Process controlling measures
- » Quality check of produced parts
- » Detailed test report including proposals for establishing customers own quality assurance system is part of this Henkel service

Quality Control and Trainings at the Henkel Technology Center

- » Evaluation of 3D furniture parts according to standardised test methods (e.g. AMK, FIRA)
- » A detailed report is part of this Henkel service
- » Technical training service on production lines for optimal use of AQUENCE 3D adhesives
- » Beside the Henkel standard training, individually designed programs are possible as well
- » A detailed training manual is part of this Henkel service



Your Benefits

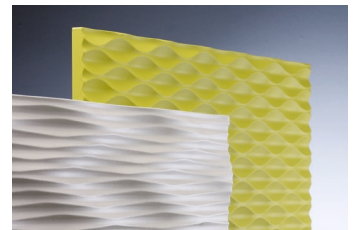
From expert to expert – the Henkel team provides technical support on customer's site as well as at the Henkel Technology Center.

A New Design Needs Competent Partners Close and Comprehensive Team Work

In close co-operation with our customers we share from the beginning our experience when processes have to be redefined as well as new materials or machines are to be introduced.

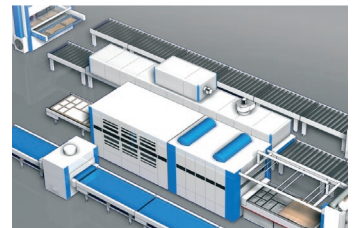
Focused on Materials

- » Application and performance tests of new materials at the Henkel Technology Center according to our standards or customers requirements
- » **Benefit:** Saving of expensive machine capacities due to no interruption of production lines
- » An detailed report is part of this Henkel support



Focused on Application Equipment

- » On the background of optimal use of AQUENCE 3D adhesives, Henkel experts offer assistance on selecting suitable processing technology
- » In dependence on system complexity, support in feasibility studies can be provided
- » **Benefit:** Assistance on adhesive relevant issues related to equipment and using our long-term contacts to machine suppliers



Focused on Safety, Health and Environment

- » Information on new regulations and directives in condensed manner
- » **Benefit:** Time intensive study of extended and complicated publications become unnecessary



Responsible Care®

Your Benefits

We make you aware of promising trends and share them with you. As your partner, we continuously improve product quality and reduce production costs.

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