

Press Release

April 4, 2018

Clean and safe: How to improve safety and quality in packaging production

Proactive equipment maintenance offers great rewards

Düsseldorf – In packaging, regular machine maintenance is crucial for ensuring product and operator safety, improve efficiency and enable the highest quality. As adhesives are key components for many kinds of packaging production, it is worth taking a closer look on how to optimize handling of the adhesive and the corresponding maintenance of adhesive melters. In our interview, Philippe Cordier, Head of Technical Customer Service End of Line Packaging Adhesives at Henkel, shares his insights on measures and means for increased safety and performance that can also lead to reduced production costs.

Philippe, based on your experience, what advice would you give to customers regarding the everyday handling of adhesives for packaging to ensure the best quality and safety of packaging?

Reducing risks and preventing problems from the beginning – in my opinion, this is the best and most convenient way to ensure product safety and quality for packaging. A proactive machine maintenance routine is central to this. Choosing the right equipment and hotmelt is an important lever as well.

What is part of such proactive maintenance routine? Is there anything you can do to increase the safety of operations and of the product packaging that does not imply a costly preparation or the use of additional resources?

Yes there is, absolutely. In my experience, every line manager can take five measures with an immediate positive effect:

Measure number one: Proactive maintenance starts by ensuring that the hotmelt is always stored in closed containers. This protects the adhesive from contamination, for example by dust, board fibers or water. Even though the contaminating particles are not visible when you look in the sack with adhesives, they must not be ignored; they cause quality issues after the adhesive has been melted in the tank.

Measure number two: In case the tank is filled manually, always use a clean metal or plastic scoop. Spilled adhesive should never be put back into the containers or tanks – this would mean a risk of contamination.

Measure number three: For improved bonding, keep the tank topped up a little and refill it regularly. This helps to minimize variations in tank and adhesive temperature and improves bonding. Also ensure that the hotmelt tank is not overfilled.

Measure number four: Use the stand-by mode, if you know the line is not scheduled to run for a period greater than four hours. This helps to prevent degradation and ensures the melting unit is available when needed. In case of a stoppage greater than 72 hours, it is best to turn the melter off.

And finally: Control the coat weight and the positioning of the adhesive beads; this will help to eliminate the build-up of adhesive in the machine. It also ensures that the excess of adhesive is not being applied to the packaging material.

If you follow these simple rules, you will need to clean and maintain your machines less often. You will also prolong the life of your machine parts. Although you can't avoid cleaning completely, you can minimize it considerably this way.

Let us have a closer look on the cleaning itself. What is your advice on this matter?

When talking about cleaning cycles, we have to distinguish between the melter and the surface of the machine.

Melter cleaning is necessary when you change the adhesive; this can have a severe impact on the performance of the new adhesive technology running in the system. Melter cleaning should also be part of the annual service of the system.

When it comes to the machine surface, as a minimum, cleaning should be part of the weekly maintenance. I would strongly advise the removal of all sort of adhesive build-up on the guiderails, compression plates or bars.

In a nutshell: A clean machine is the cornerstone of a safe product. Clean machines are the result of proactive maintenance, cleaning or a combination of both. Ensuring this offers great rewards for a relatively small, low-cost effort.

What are further advantages of regular and thorough cleaning? Is there anything beyond product safety?

Definitely: Proper cleaning minimizes machine downtime. If you clean your machines properly, you will spend less time cleaning overall.

Improved packaging quality is a further argument. Thorough cleaning avoids build-up on the nozzle, leading to adhesive beads that are cleaner and more precise. This increases the quality of the finished packaging, as it avoids bonding failures, for example.

Longer machine life is another result of good cleaning – it reduces the need for costly spare parts or new equipment.

Let's shift the topic from measures to means: What about operator safety with cleaners? Common knowledge says cleaners might be harmful for human health, especially if exposed to them regularly over a long period of time. What can be done to minimize health risks?

First and foremost: Workers should use gloves, protective goggles, proper work wear and follow the rules of handling as given by the manufacturer of the machine and the adhesive.

Normally, tank cleaning agents are not harmful at room temperature. However, they are applied at temperatures over 100°C, which means you should avoid direct skin contact to prevent skin burns.

Surface cleaners vary when it comes to health risks. Users should check the information in the CLP section of the label.

Are there differences in CLP classification for available surface cleaners? Do they vary in its risk potential for human health or environment?

Cleaners can make the difference – also when it comes to health and environmental risks. At Henkel, we are constantly talking with our customers to understand their needs. And indeed: There has been a growing interest in optimized work safety using cleaners with less severe CLP classification. This is particularly the case in the food and beverage industry.

We have just introduced our new “Technomelt Cleaner Pure” that is addressing this need. It has a significantly less severe CLP classification for both human health and the environment. It is our response to customers' calls for cleaners with even higher health and safety standards.

Technomelt Cleaner Pure does not contain substances responsible for hazard classification that are present in regular cleaners on the market: There is no H226 (flammable liquid and vapor), no H304 (may be fatal if swallowed and enters airways), no H410 (very toxic to aquatic life with long-lasting effects), and no H317 or H315 (cause or may cause skin irritation or allergic reactions).

We understand that Henkel has several cleaner products on offer. Beyond Technomelt Cleaner Pure, there's also Melt-o-Clean, for example. Can you tell us more about those? What is the typical use? What are the main characteristics beyond health safety?

Technomelt Cleaner Pure is ideal for regular cleaning of machine surfaces. It removes any contamination effectively and easily. It has shown very good performance on all cold machine parts

Technomelt Melt-o-Clean, on the other hand, is for multi-purpose surface cleaning. It is especially effective for removing residual adhesive and heavy grease and grime.

Thank you for your tips and insights so far, Philippe. Is there anything else you can offer to our readers?

I'd just like to remind you about the great rewards you can get with proactive machine maintenance – on top of the improvements for health and safety. We are always here if you have any questions and are happy to help and team up.

This information only refers to Henkel products and services in Europe. There may be discrepancies in other regions regarding, amongst other things, availability of products and offers. Technomelt is a registered trademark of Henkel in Germany and elsewhere.

About Henkel

Henkel operates globally with a well-balanced and diversified portfolio. The company holds leading positions with its three business units in both industrial and consumer businesses thanks to strong brands, innovations and technologies. Henkel Adhesive Technologies is the global leader in the adhesives market – across all industry segments worldwide. In its Laundry & Home Care and Beauty Care businesses, Henkel holds leading positions in many markets and categories around the world. Founded in 1876, Henkel looks back on more than 140 years of success. In 2017, Henkel reported

sales of 20 billion euros and adjusted operating profit of around 3.5 billion euros. Combined sales of the respective top brands of the three business units – Loctite, Schwarzkopf and Persil – amounted to 6.4 billion euros. Henkel employs more than 53,000 people globally – a passionate and highly diverse team, united by a strong company culture, a common purpose to create sustainable value, and shared values. As a recognized leader in sustainability, Henkel holds top positions in many international indices and rankings. Henkel’s preferred shares are listed in the German stock index DAX. For more information, please visit www.henkel.com.

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The following material is available:



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