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Technical Information

Operational area of UV-TEC-CONTROLLING STRIP

The trend of the last years has shown us, that the application of UV-technology would be unthinkable without the market. In different industrial areas UV-radiation has its application for example: polymerisation of UV-printing –colours, UV-lacquering, UV-powder-lacquering, UV.adhesive at Polymer as well as water-sterilization, Sterilization ...

The important fact a constant hardening with UV-radiation is not the capacity of the UV-bulbs but also the real result of UV-dosis (mJ/cm²) on the substrat.

The „UV-TEC-CONTROL-STRIP“ will answer your questions:

- How can you make sure the manufacturing process?
- What is the real UV-dosis on the substrat?
- Will you produce with the same conditions as well as the qualified charge?
- Is the UV-dosis sufficient enough in the fringe area for a complete hardening?
- Can the capacity of UV-bulbs be guaranteed after a great many of operating hours?
- Is the change of the UV-bulbs necessary after 500 – 1000 operating hours?

UV-application has to be handled with special care in food, pharmaceutical and toy packaging. Monomers which are placed in printing colours and lacquering components can pass through in case of a not complete hardened surface. These facts can damage the health of the ultimate consumer and the staff.

A misproduction because of a not complete hardened coating causes rework blocking and a lot of costs.

Quality-Control of your product by using „UV-TEC-CONTROL-STRIP“

- You put to service equipment on the parameter of production (speed, capacity of UV-bulbs etc.)
- You adhesive the „UV - TEC – Control - Strip“ on the object which has to be measured left-middle-right and irradiate it.
- The result which you will achieve has to be placed to the comparative colouring scale and has to be marked.
- For the next production you put to service the parameter like the qualified charge, before the beginning you make a „test“ with „UV-TEC-CONTROL-STRIP“and compare if the colouring of the measuring area corresponds to the last production. If this is the fact, you will have the attestation, that you will produce under the same conditions as before.

Quality-control of „3D-Objects“ by using „UV-TEC-CONTROL-STRIP“

In case of geometrical objects (for example: bottles, cans, furniture, parts of cars etc.) you will have the questions if in all areas you will have a complete hardening. Especially article are the areas which are in the shadow of UV-lamps.

- You adhesive your „UV – TEC – Control - Strip“ have nearly the same colouring after irradiation you will have the attestation that in all areas you will have a proportional radiation and also a homogeneous hardening of varnishing surface.
- If differences in colouring will occur of laquer did not operate in a uniform way. To adieve a high qualified varnishing in all areas you have to remodelling the UV-bulbs.

Controlling of the capacity of UV-bulbs by „UV-TEC-CONTROL-STRIP“

- You install a new UV-bulb
- You determine a special speed of your plant
- Adhesive one by one „UV - TEC - Control - Strip“ ont he foil or paperroll respectively printing paper left-middle-right and irradiatte it
- The diffrent colouring result has to be placed to the comperative colouring scale and
- Has also to be documented in your working book
- After approximately 200 operating hours you will repeat the procedure and check if you have achieved the same result of colouring.
- If the result of colouring differs from the original one the capacity of the UV-bulbs has desreased, that means that you have to reduce the speed of your plant respectvelly you have to install new UV-bulbs then you will be able to produce produce with the same UV-dose. But it can also be the fact that your UV-bulb-reflector are dirty.

