



Seal-it-Systems

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Ref: Technical visit (25/02/09)

Purpose of visit: To evaluate sealing issues with 4 pack cluster pots using ***** pre-cut lidding material on a recently converted ***** 3 lane linear filling line

Pots: The 4 pack (round) pots were examined and found to have a nominal rim thickness of 0.80mm with differential of no more than +/-0.05mm. The pots are well formed although the sealing rim is narrower than a standard Ø71.0mm pot

Lids: The lidding material is polyester with one-way pin dot embossing. At present we are uncertain if the ink system is UV or solvent although can confirm that all designs are over lacquered – NB: It was highlighted by Production that ‘ink lift’ was evident on certain areas of the Greek Black Cherry design (section printed – Heritage Raspberry, Bramley Apple and Senga Strawberry). On monitoring production ‘ink lift’ was also evident on the Mediterranean Peach & Apricot section of the lids

The lids are pre-perforated in order to allow ‘easy separation’ when breaking the pots. Ideally the perforations should start & stop with a larger cut in order to ensure a clean, easy tear. The ***** lids do not start with a cut and in the centre have an un-perforated section that is approx. 2.0mm long. Our experience shows that perforations that do not break easily can in some cases cause lids to peel back when the consumer attempts to break the pots (this item should be discussed with ***** – if required SIS can provide a Technical drawing of the ideal set-up)

Filling line: The 3 lane ***** has recently been converted from 130.0 x 130.0mm square 4 pack to the round cluster. The machine has approx. 70 slats that provide direct support and location for the pots. On initial set-up the machine had a ‘flat’ seal profile which did not provide an efficient seal on ALL pots/lanes. SIS recommended a beaded seal format in order to concentrate the seal force and therefore improve overall sealing performance. The modification was implemented and the filler is now running with minimal rejects (additional comments/recommendations – see below)

1. Convert 1 piece sealing plate to 4x separate round faces (easier maintenance, etc)
2. Manufacture sealing faces from aluminium (hard anodized) for improved heat recovery
3. PTFE coating for sealing face (this would be in place of hard anodizing and would reduce or eliminate the issue of ink lift)
4. Lanes 2 & 3 appeared to have excessive movement on the sealing head assembly (this should be rectified)

- 5.
6. Heater blocks (3x cartridge heaters) – NEW larger blocks are currently be manufactured by *****
7. Sealing temperature – measured @ 185 to 210°C (this should continue to be monitored and were possible any differential be reduced (see items 1 & 2)
8. Heat seal time – currently set @ 0.7 sec – even a small increase in sealing time would be of benefit and improve seal efficiency although we realise that machine speed is critical (target speed is 29 cycles, current speed 26 cycles)
9. Compliance rubber – the suggestion of sitting the pots on silicone rubber is obviously a difficult and large scale project and would therefore not be an option at present

Please feel free to contact us if you have any questions or comments

Best regards,

Alan Ogden