



### Hollows / Cratering

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Hollows refer to sunken spots that occur on a coated surface when the paint/coating is repelled.

Cratering refers to holes penetrating from the coated surface to the ground surface of the substrate.

Note: Occurrences of hollows and/or cratering depend frequently on oil, moisture, and other external conditions, rather than that the paint itself is attributable to the occurrence.

#### Q1:

**Is the cause a degreasing failure occurring during a surface treatment process?**

#### A1:

Check the degreasing solution. Explore degreasing agents.

#### Q2:

**Did you change the workpiece supplier?**

#### A2:

Explore appropriate degreasing conditions.

#### Q3:

**Did you change the press oil or anti rust oil?**

#### A3:

Check the degreasing solution. Explore degreasing agents.

#### Q4:

**Is, in the surface treatment process, dehydrate and drying sufficient?**

#### A4:

Perform thorough dehydrate and drying.

#### Q5:

**Do you control substrates properly after surface treatment?**

#### A5:

Ensure that substrates do not come into contact with a bare hand or any other bare skin to prevent contamination.

#### Q6:

**Is there any water or oil on the substrate?**

#### A6:

Check the surface conditions. Ensure that substrates do not come into contact with a bare hand or any other bare skin to prevent contamination.



**Q7:**

**Is the surface soiled after under coating and wet sanding?**

**A7:**

Check the surface conditions. Ensure that substrates do not come into contact with a bare hand or any other bare skin to prevent contamination.

**Q8:**

**Is any water or oil seeping from the coating machine?**

**A8:**

Conduct maintenance of the air dryer and degreasing equipment. Inspect the pressure equipment.

**Q9:**

**Does water or oil accumulate in the transformer?**

**A9:**

Install an air cleaner and oil filter.

**Q10:**

**Is oil dripping from the conveyor?**

**A10:**

Clean the conveyor regularly. Repair the coating line.

**Q11:**

**Is the temperature and/or humidity high?**

**A11:**

Improve the ventilation. Provide air conditioning.

**Q12:**

**Is the paint booth dusty?**

**A12:**

Improve the ventilation. Install an air filter. Sprinkle water on the floor.

Care is required for the clothing of the operator.

**Q13:**

**Is any spray dust of a different type of paint on the substrate?**

**A13:**

Change the direction of the ventilation. Change the paint booth. Shift the coating time.



**Q14:**

**Did you change the batch of paint?**

**A14:**

Check whether there was a recent batch change or an old batch was used.

**Q15:**

**Did you mix an incorrect type of paint?**

**A15:**

Check the paint film using paint from a fresh can.

**Q16:**

**Did you use the specified thinner?**

**A16:**

Use the specified thinner.

**Q17:**

**Is the solubility of the thinner appropriate?**

**A17:**

Use a thinner with high solubility.

**Q18:**

**Is the setting time short?**

**A18:**

Adhere to the specified setting time. Control the thinner so that it evaporates slowly.

**Q19:**

**Is the paint film thicker than appropriate?**

**A19:**

Adjust the specified film thickness.

**Q20:**

**Is silicone present in the coating chamber?**

**A20:**

Improve the ventilation.

If silicone or the like is used nearby, separate it from the coating area.



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**Q21:**

**Does exhaust gas or soot from the hot-air oven enter the setting or coating chamber?**

**A21:**

Use an air curtain or the like to shut out them.

**Q22:**

**Is there any problem in the environment in the vicinity of the coating factory?**

**(Airborne silicone or the like from an external source)**

**A22:**

Is there any factory that contaminates the air (specifically with silicone mist), such as an automobile repair shop, rubber plant, or car wash?

If this is the case, the direction toward an air intake port requires due attention.

The tendency of the condition depends on the direction of the wind and the season.