

9. Study on Measures Against Indoor Air Pollution by Chemical Substances

—The Performance of the Ventilation System and the Effect of Formaldehyde Adsorbent—

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An ordinary ventilation system using for multiple dwelling houses has several problems as follows. An amount of ventilation in an each room cannot be able to control sufficiently. When the other room's door or the entrance door is opened, an amount of ventilation changes greatly. It was confirmed that the fan installed to the wall between a room and a corridor solves these problems. The fan which exceeds the proper capacity makes bad effect by contraries. So, it is proposed that the fan should be selected so that the air change of the room become equal to that of the whole dwelling.

The effect of formaldehyde adsorbent was studied experimentally. And its fundamental capacity, durability, effect in the actual size room and the influence of after treatments were checked. According to the result, the adsorbent inhibits the emission of formaldehyde from board down to 4% to 16%, and its effect maintains more than 300 days. So, it is confirmed the formaldehyde adsorbent is useful for measures against formaldehyde.

Key words : indoor air pollution, formaldehyde, ventilation system, air flow network, adsorbent