

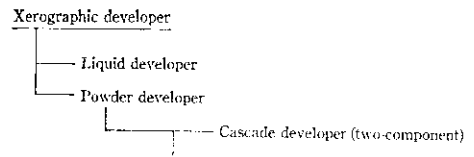
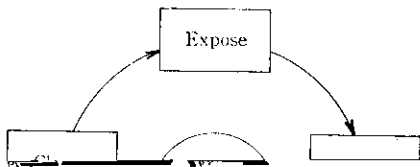
**KAWASAKI STEEL TECHNICAL REPORT**

No.23 ( October 1990 )

# Dependence of Xerographical Developability of Ferrite Carrier Properties\*

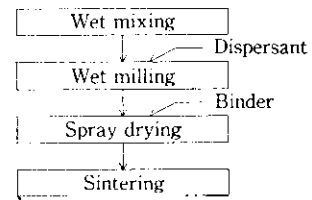
## Synopsis:

*(The following text is obscured by a large black redaction block.)*



rite carrier

Magnetic properties	Saturated magnetization Coercive force Permeability
Electric properties	Specific resistivity



Powder characteristics	Mean diameter Diameter distribution
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Classification

$$ID = -\log \{R_p \exp(-kM) + R_t[1 - \exp(-kM)]\} \quad (2)$$

where  $R_p$ : reflectivity of the paper

$R_t$ : reflectivity of the toner

$M$ : mass of adhered toner onto a unit area  
( $\text{kg}/\text{m}^2$ )

$k$ : constant

The photoconductor drum should be fully covered with the adhered toner in order to obtain a bright copy, but copy cost is affected by excess toner. Hence, the carrier is required to develop the toner properly

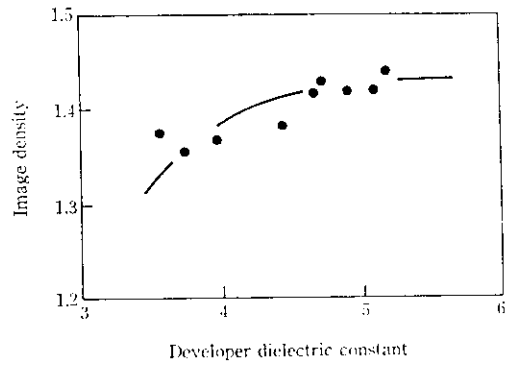


Fig. 1. Image density vs. developer dielectric constant

The mass of the adhered toner is expressed in Eq. (3)

constant and image density

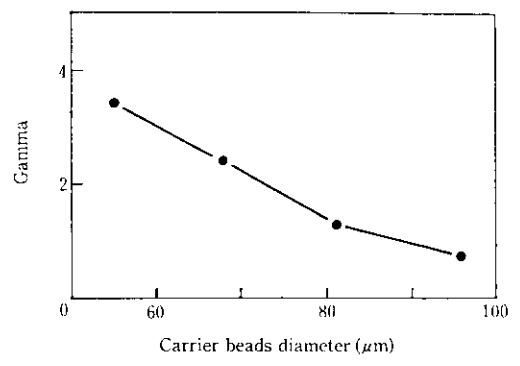
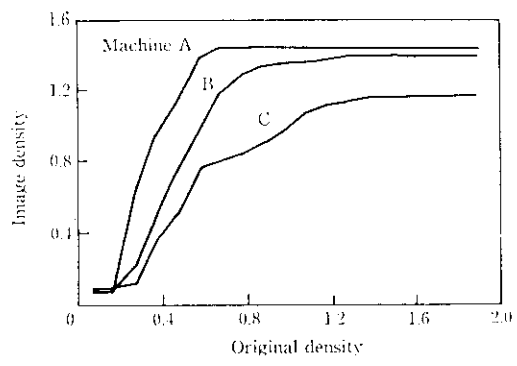


Fig. 9. Relationship between ...

unit)



experiments in order to clarify the dependence of xero-  
graphical developability on ferrite carrier properties.  
(1) The image density increased with an increase of the