

Title (en)

Fusing system, method of fusing and release agent for the fusing system in an electrostatographic printing apparatus

Title (de)

Schmelzfixiersystem, Verfahren zur Schmelzfixierung und Trennmittel für das Schmelzfixiersystem in einem elektrostatischen Druckgerät

Title (fr)

Système de fixation par fusion, procédé pour le fixation par fusion et agent de séparation pour le système de fixation par fusion dans un appareil à imprimer électrostatographique

Publication

EP 0657789 B1 19980715 (EN)

Application

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Priority

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- US 31475994 A 19940929
- US 31500494 A 19940929
- US 31500694 A 19940929

Abstract (en)

[origin: EP0657789A2] The method of fusing thermoplastic resin toner images (14) to a substrate (12) in a fuser including a heated thermally stable FKM hydrofluoroelastomer fusing surface (2) at elevated temperature prepared in the absence of anchoring sites for a release agent of heavy metals, heavy metal oxides, or other heavy metal compounds forming a film of a fluid release agent on the elastomer surface (2) of an amino functional oil having the formula: <CHEM> where $50 \leq n \leq 200$, p is 1 to 5, and R1, R2 and R3 are alkyl or arylalkyl radicals having 1 to 18 carbon atoms, R4 is an alkyl or arylalkyl radicals having 1 to 18 carbon atoms and a polyorganosiloxane chain having 1 to 100 diorganosiloxy repeat units, and R5 is hydrogen, alkyl or arylalkyl radicals having 1 to 18 carbon atoms, the oil having sufficient amino functionality per active molecule to interact with the hydrofluoroelastomer surface in the absence of a heavy metal and heavy metal anchoring sites to provide an interfacial barrier layer to the toner and a low surface energy film to release the toner from the surface; contacting the toner image on the substrate with the filmed heated elastomer surface to fuse the toner image to the substrate and permitting the toner to cool. <IMAGE>

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