

Title (en)  
Slot coating die configuration.

Title (de)  
Konfiguration einer Schlitzauftragsdüse.

Title (fr)  
Configuration de filière d'enduction en forme de fente.

Publication  
**EP 0650769 A1 19950503 (EN)**

Application  
**EP 94115809 A 19941007**

Priority  
US 14596093 A 19931029

Abstract (en)  
A new and useful configuration for a slot coating die is provided, which is designed to apply a substantially streakless coating of a hot melt material (e.g., hot melt varnish) to a moving substrate such as a web of printed label stock. The coating die is specially configured to (i) provide a substantially smooth, streakless coating of a hot melt material onto a moving substrate, and (ii) allow small particles in the hot melt material to be released from the coating die and the web so that the particles should not accumulate in the coating die or cause streaking of the coating. The coating die has an upper lip (36), a lower lip (38), and a slot (34) disposed between the upper and lower lips. The upper lip (36) is undercut (or offset) relative to the lower lip (38), and has a front face which is configured to form (i) a wiping surface (60), (ii) a release surface (62) which extends beyond the wiping surface (60) and curves away from the moving substrate, and (iii) a relief surface (64) which extends from the slot (34) to the wiping surface. During operation of the slot coating die, hot melt material is extruded through the slot(34), and the configuration of the upper die member (i) guides the hot melt material in the direction of movement of the substrate and toward the wiping surface, (ii) gently wipes the hot melt material to a smooth, streakless state, and (iii) enables small particles in the hot melt material to be released from the slot coating die in a manner designed to avoid accumulation of particles in the coating die and/or streaking of the coating. <IMAGE>

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**B05C 5/0254** (2013.01)

Citation (search report)  
• [XA] US 4299186 A 19811110 - PIPKIN DAVID J, et al  
• [A] EP 0025007 A1 19810311 - ACUMETER LAB [US]

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