

Title (en)
LIGNIN-BASED FRICTION MATERIAL

Title (de)
AUF LIGNIN BASIERENDES REIBUNGSMATERIAL

Title (fr)
MATERIAU DE FROTTEMENT A BASE DE LIGNINE

Publication
EP 0856030 A4 19991117 (EN)

Application
EP 95939523 A 19951018

Priority
• CA 2242554 A 19951018
• US 9513286 W 19951018

Abstract (en)
[origin: WO9714747A1] This invention provides for a friction material composition suitable for friction element formulation. The composition comprises an essentially sulfur-free lignin with low water solubility. The lignin replaces from about 1 to about 30 % on a weight basis with the phenolic resin in the friction material composition. A method of reducing noise within the range of human hearing resulting from friction element performance is also provided.

IPC 1-7
C08K 5/13; C08L 97/02; C08J 5/14; B22C 1/18; B22C 1/22

IPC 8 full level
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F16D 69/022 (2013.01); **F16D 69/025** (2013.01); **F16D 2200/0065** (2013.01); **F16D 2200/0073** (2013.01)

Citation (search report)
• [XY] EP 0540835 A2 19930512 - RUETGERSWERKE AG [DE]
• [A] GB 1529091 A 19781018 - BENDIX CORP
• [Y] DATABASE WPI Week 8233, Derwent World Patents Index; AN 82-69381e, XP002104444, "Friction material e.g. for automobile brakes - contg. atomised iron powder, steel fibre, graphite and binder resin"
• [A] DATABASE WPI Week 9408, Derwent World Patents Index; AN 94-062220, XP002104445, "Friction material prepn. for brakes preventing abnormal noise generation - comprises adding lubricant, filler, binder, friction regulating agent contg. cashew resin, etc. to base material contg. copper fibre."
• See references of WO 9714747A1

Designated contracting state (EPC)
AT BE CH DE DK ES FR GB GR IE IT LI NL PT SE

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