

Title (en)  
SINTERED METAL BODY AND METHOD OF MAKING SAME

Publication  
**EP 0103056 B1 19860917 (EN)**

Application  
**EP 82304852 A 19820914**

Priority  
EP 82304852 A 19820914

Abstract (en)  
[origin: EP0103056A1] A sintered metal body, having an annular form suitable for use as a valve seat or seal, is impregnated (13) with an uncured polymeric material such as PTFE which is then cured to partially fill the interparticulate spaces in the sintered metal body. The impregnated body is then subjected to applied pressure (16) which preserves the annular shape of the body while collapsing substantially all voids throughout the body to cause the cured polymeric material within the sintered metal body to completely fill the collapsed interparticulate spaces thereby to render the body nonporous throughout. In as much as the interparticulate spaces are completely filled with cured polymeric material, any increases in temperature of the body which result in an expansion of the polymeric material cause a migration of portions of that material from the inferior of the body to the exterior surfaces of the body to lubricate the exterior surfaces. The body may, in addition, be completely covered by another layer of cured polymeric material to give the seat additional initial lubricity (17).

IPC 1-7  
**B22F 3/24**

IPC 8 full level  
**B22F 3/24** (2006.01); **B22F 3/26** (2006.01)

CPC (source: EP)  
**B22F 3/24** (2013.01); **B22F 3/26** (2013.01)

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