

From: Arthur W. Brooks
Sent: Wednesday, November 21, 2007 7:53 AM
To: Hutch Neilson
Cc: Michael C. Zarnstorff; Lawrence E. Dudek; Phil Heitzenroeder
Subject: RE: Correction: Coated Shims PERMEABILITY

Hutch,

Yes, I would consider them acceptable.

I would advocate we still strive for "as low as reasonably achievable". For the shims, it sounds like we are there.

Art

-----Original Message-----

From: Hutch Neilson
Sent: Tuesday, November 20, 2007 5:15 PM
To: Arthur W. Brooks
Cc: Michael C. Zarnstorff; Lawrence E. Dudek; Phil Heitzenroeder
Subject: Re: Correction: Coated Shims PERMEABILITY

Art, I take this to mean that you consider the shims acceptable. Hutch

On Nov 12, 2007, at 9:57 AM, Arthur W. Brooks wrote:

Folks,

The mu used in the calculation below was 2.0, not 1.2 as stated. The field error is still 0.24 Gauss.

Art

-----Original Message-----

From: Arthur W. Brooks
Sent: Monday, November 12, 2007 9:56 AM
To: Michael C. Zarnstorff; Lawrence E. Dudek
Cc: Phil Heitzenroeder; Hutch Neilson
Subject: RE: Coated Shims PERMEABILITY

Folks,

The max field error at the plasma from the bond coat (assuming $\mu = 1.2$, thickness of 0.010" on each side and the area of the coating is about 22 sq. inches per side) is calculated to be 0.24 Gauss. This is only slightly higher than the 0.1 Gauss which I would

normally consider to be insignificant. There resonant field error component would lead to islands of < 0.5% if taken separately.

Art

-----Original Message-----

From: Michael C. Zarnstorff

Sent: Friday, November 09, 2007 9:46 AM

To: Lawrence E. Dudek; Arthur W. Brooks

Cc: Phil Heitzenroeder; Hutch Neilson

Subject: Re: Coated Shims PERMEABILITY

When we first had the bond coat discussion with Geoff, I recall there being a discussion of its permeability effects. I thought that Art analyzed it at the time, but I don't know if these were the dimensions. I also recall Art analyzing the nickle carrier for the diamond friction coating, and concluding it would be ok.

Mike.

At 05:14 PM 11/8/2007, Larry Dudek wrote:

Art,

The thickness of the bond coat is 0.010" on each side and the area of the coating is about 22 sq. inches per side.

Larry Dudek