

# Dynamic Corrosion Resistance

## - more than just a "pretty" description

Guaranteed not to chip, flake or peel under the harshest of operating conditions, the unique **ARMOLOY NTDC** (Nodular Thin Dense Chrome) coating can offer you a functioning, moving component having a corrosion resistance equal to or better than a 400 series Stainless Steel on top of an optimised alloy steel base. **Armoloy** allows the designer or specifier much greater freedom in the selection of base metal and heat treatment ( where relevant ).

In addition, Armoloy offers a surface hardness that can exceed 78 Rc and 30 - 50% reduction in surface friction together with a naturally lubricant retentive surface that has had hundreds of proven applications in a wide variety of industries.

Of possibly greater significance is the fact that Armoloy, whilst able to limit galling and pickup in sliding and rubbing single surface applications ( including threads ), has proven to be successful in working against itself in dual surface applications - this in defiance of the traditional doctrine that says you should never mix like metals or hardnesses.

Yes - at the end of the day, it is a coating but this coating is literally fused to the base metal and is, repeating my earlier statement, guaranteed not to come off. It loves dynamic applications, rolling, sliding, reciprocating even vibrating and can comfortably work over a wide range of temperatures and pressures.



Too good to be true - well, it goes on.

Processing employs no elevated temperatures with none of the routings exceeding 75 degrees centigrade unless an externally specified heat treatment operation is incorporated. This eliminates the possibility of distortion or interfering with any locked in heat treatment operation already required in the manufacture of the uncoated component.

The Armoloy NTDC coating is chemically neutral and completely non-toxic. It has passed numerous biocompatibility, skin irritation and toxicological ( NAMS ) tests. The coating can also be certified as safe for food, medical and pharmaceutical applications and complies with US FDA and European EC No. 1935/2004 requirements.



Of paramount importance from a buyer's perspective is the fact that the coating is normally only 3 - 5 microns in thickness and is applied to finished tolerance thus eliminating the need for finishing operations. This means that uncoated catalogue parts can often be adopted minimising any awkward design changes thus holding down costs and shortening lead times by utilising existing stocks.

Industries served include Aerospace, Nuclear, Oil & Gas, Food & Packaging, Pharmaceutical & Chemical with components ranging through valves, actuators, linear slides & ballscrews, feed screws, precision ball & roller bearings, hydraulic & pneumatic cylinders etc., etc.



Armoloy( UK) has itself received numerous company approvals in all of the above industries and also complies with a number of international specifications and standards as well as specific company standards written to comply with the requirements of well known multi-national and global names. The company has long been accredited to both ISO 9001:2008 and AS9100 Rev.B but has recently been awarded the world renowned NADCAP certification which is crucial to consideration on all new aerospace projects.

Whilst this is not necessarily applicable to your task or industry, it is indicative of the internationally recognised standards that Armoloy(UK) can work to on your behalf. Armoloy ( UK ) is able to handle components from a few grams up to a maximum of 5000 kilograms in weight with sizes ranging up to 4500mm in length.

Oh - and one final point. We do handle components in ones and twos - Quantity is not a barrier to Quality where we're concerned.



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