

	One Allison Way Indianapolis, Indiana 46222-3271 USA	<b>AMS-2481</b>  <b>Phosphate Treating Antichafing</b>
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*DATE		*QUANTITY TESTED	
*ORGANIZATION		*PART NUMBER	
*PHOSPHATE SUPPLIER		*PART NAME	
*NAME OF LABORATORY		*BATCH TRACE NUMBER	
*TIER 1 Machiner		*Tier 1 PO Number	
*SUPPLIER VENDOR CODE			

AMS-2481 Phosphate Treating Specification	SPECIFICATION / LIMITS (min/max)	SUPPLIER TEST RESULTS (DATA)	OK	NOT OK
<i>Phosphate Coating Supplier is to adhere to ALL sections noted on AMS2481</i>	Review sections 1 through 8.6			
<i>3.1.1.1.2 – Stress Relief for hardness HRC 40 and above</i>	40-54 375 deg F +25 >55 275 deg F for 5-10 hours			
<i>3.1.1.1 – Clean and remove surface contamination</i>	Verify cleanliness and perform water break test			
<i>3.3.2 – Hydrogen Embrittlement – After phosphate coating treatment of steel parts having a hardness of 40HRC or higher shall be in accordance with AMS2759/9 except parts shall be baked at 210 to 225 degrees F for 8 hours</i>	210-225 deg F at 8 hours			
<i>3.4.3 Phosphate coating weight</i>	1500mg/ft2 min			
<i>4.3.4 – Hydrogen Embrittlement Test shall be accordance with ASTM F519 Type 1a1 using round notched specimens, coating shall meet the requirements of this specification on specimen surfaces and shall be visible at the root of the notch.</i>	Verify ASTM F519			
<i>4.3.1 Acceptance Tests</i>	Must meet test sampling chart shown in Table 1			
<i>4.2.2 Periodic Tests – Coating weight is a periodic test and shall be performed at least monthly.</i>	Perfrom at least monthly			
<i>3.4.2 Verify appearance – Coated parts shall have a uniform grayish black , finley crystalline appearance</i>	Verify appearance			
<i>3.5 Quality appearance – Surfaces of treated parts shall be unfirom in texture and appearance . Powdery areas, excessvie buildup and darkening of corners and edges are not acceptable</i>	Verify appearance			
<i>3.3.1 After rinsing, parts shall be immersed in hot water. Parts shall be thoroughly dried unless a water displacing oil is used for protection of parts . Dried parts shall be oiled with sutabile corrosion inhibiting oil</i>	Verify corrosion protection and note specific oil used			
<i>4.4.3 Control factors shall include Immersion time Surface preparation and cleaning procedures Phosphating solution composition and composition control limits Phosphating solution temperature limits and controls Post treatment solution control limits and procedures Hydrogen embrittlement relief bake time and temperature Corrosion inhibiting oil Stripping procedure if used</i>	Verify section 4.4.3 was completed including all control factors listed			
<i>4.6.2 Non-Conforming Control Factors – If non-conforming parts are discovered, no additional parts shall be made and process should be locked out.</i>	Follow “Reaction Plan” for non-conforming material			
<i>4.5 Reports – Certification – The coating vendor shall furnish with each shipment a report or certification stating that the parts have been processed and tested in accordance with the requirements of this specification and that coated parts conform to the acceptance test requirements. This certification shall include the PO, lot number, compliance to AMS2481K, part number and quantity. The supplier’s certification along with AT-1927-98 form must be provided with every lot shipped.</i>	Provide Phosphate certification on every batch to section 4.5 along with this AT-1927-98 form.			