

UNISTAR HEXAPASS BLACK-55

UNISTAR HEXAPASS BLACK-55 is a high efficiency single dip immersion process to produce jet black chromate conversion coatings on zinc deposits of cyanide, alkaline non cyanide and chloride zinc baths. The system can be used in manual and automatic rack operations and in basket and barrel operations.

The chromate coatings produced has a good adhesion to zinc plated surfaces and afford good corrosion and abrasion resistance. A zinc plate properly black chromated in UNISTAR HEXAPASS BLACK-55 will withstand in excess of 50 hours of standard salt spray solution without white corrosion.

UNISTAR HEXAPASS BLACK-55 is supplied as two liquid components namely UNISTAR HEXAPASS BLACK-55 A and UNISTAR HEXAPASS BLACK-55B, used for both make up and replenishment.

OPERATING CONDITIONS

UNISTAR HEXAPASS BLACK-55 A :	80 - 100 ml/ltr
UNISTAR HEXAPASS BLACK-55 B :	80 - 100 ml/ltr
Temperature :	Room.
Time :	60 - 90 sec.
pH (Electrometric) :	1.2 to 2.5

BATH MAKE UP

To make up 100 lts. of UNISTAR HEXAPASS BLACK-55 operating solution:

Fill the tank 2/3rd full of D.I. water .

Add 8 lts. of UNISTAR HEXAPASS BLACK-55 A and stir to mix.

To this add 8 lts. of UNISTAR HEXAPASS BLACK-55 B and stir to mix.

Make up the volume to 100lts.

Do not pre mix UNISTAR HEXAPASS BLACK-55 A and UNISTAR HEXAPASS BLACK-70 B prior to adding to the processing tank. The operating solution prepared is slightly turbid and this turbidity is normal and does not have negative effect. Drag in of chloride ions should be avoided, as it will increase the consumption of UNISTAR HEXAPASS BLACK-55 B.

PROCESS CYCLES FOR BLACK CHROMATING

1. Zinc plate (Minimum plating thickness 5 microns)
2. Cold water rinse.
3. 1 - 2% by volume sulphuric acid dip or bright dip in CHROLITE BL-50.
4. Cold water rinse.
5. Black chromating in UNISTAR HEXAPASS BLACK-55 bath for 30 - 90 seconds at room temperature.
6. Cold water rinse.
7. Air dry. (65C Maximum)

Hot water should not be used for drying as it tends to dull the finish and reduce the corrosion resistance. The black chromate coatings formed are soft when wet and therefore care must be taken to minimise handling the work before it is dry.

REPLENISHMENT

The bath is replenished by analysis or by physical observations and consumption patterns. Small additions of 1 to 2 parts of UNISTAR HEXAPASS BLACK-55 A and 1 part of UNISTAR HEXAPASS BLACK-55 B are to be added to the bath with agitation. If the coating is iridescent after the replenishment the addition of UNISTAR HEXAPASS BLACK-55 B can be further increased.

EQUIPMENT

High density polyethylene, polypropylene, P.V.C. or steel tanks lined with these materials are recommended, baskets, barrels or racks made up of the same material are recommended for holding the work.

NOTE

The data set forth in this bulletin is believed by PATEL CHEMICAL, to be true, accurate and complete but is not guaranteed. Our sole warranty is as stated in our standard Terms and Conditions of Sale. We cannot warrant that our customers will achieve the same results from any bulletin because we do not have control over the conditions of use; nor can we assume any responsibility for our products in a manner which infringes the patents of third parties.