

TECHNICAL DATA SHEET

ZN TRIKOTE BK – 450

ZN TRIKOTE BK – 450 is a trivalent black chromate passivation which produces black colour in combination with sealer – 10 on zinc and zinc alloy plated surfaces. The coating has high stability and are in compliances with **ELV & RoHS** directives.

OPERATING CONDITIONS:

	RANGE	OPTIMUM
ZN TRIKOTE BK 450-A	9 – 11%	10 %v/v
ZN TRIKOTE BK 450-B	11 – 13%	12% v/v
ZN TRIKOTE BK 450-C	1 – 3 %	2 %v/v
SEALER – 10	10 – 16%	13 %v/v
pH value	1.6 – 2.0	1.8
Temperature	50°C – 60°C	
Immersion time	45 – 60 seconds	

TANK AND EQUIPMENT:

TANK :

Mils steel tank with polypropylene lining

HEATING:

Glass / Teflon tube heaters

FILTRATION:

Recommended

AGITATION:

Mechanical or air agitation

FUME EXTRACTION:

Recommended

OPERATION:

- Zinc plate
- Water rinse
- Water rinse
- 2-3 ml/l nitric acid dip.

- Water rinse.
- ZN TRIKOTE BK - 450 dip.
- Water rinse.
- Water rinse.
- Water rinse.
- Sealer – 10 (20 – 30 sec)
- Hot air dry.

MAINTENANCE:

The addition of ZN TRIKOTE BK 450-A should be made by analysis after 6 – 9 hours.

The replenishment ratio of ZN TRIKOTE BK 450-A and ZN TRIKOTE BK 450-B should always be 1part ZN TRIKOTE BK 450-A : 1.25 part ZN TRIKOTE BK 450-B.

ZN TRIKOTE BK 450-C should be added at the rate of 6 – 12 ml/l when colour change is observed from black to dark grey.

ANALYSIS:

- Pipette 2 ml of passivating bath solution in 250 ml Erlenmeyer flask.
- Add 50 ml DM water and raise pH to 10 with dilute caustic soda.
(.observe sudden change in colour.)
- Add 0.5 ml of hydrogen peroxide(30%).
- Boil the solution for 15-20 minutes till the effervations of hydrogen peroxide boils away.
- Cool to room temperature and acidify with 50% hydrochloric acid to Yellow to orange colour.
- Add 1 - 2 gm potassium iodide and immediately titrate with 0.1N sodium thiosulphate solution to straw yellow colour.
- Add some freshly prepared 1 % starch indicator and continue further titration till blue colour disappears.

CALCULATION:

Consumption in ml x 1.079 = vol % of ZN TRIKOTE BK 450-A

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