

# Marshall laboratories

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## Technical Datasheet

### Black Top Coat SG

Black Top Coat SG is a specially designed organic Semi Gloss coating for extended corrosion protection . It is water based system and can be applied by spray or Dip-Spin technique. The coating can be applied on Electroplated Zinc surface which is passivated or over Zinc Flake coating

Black Top Coat SG makes the coating more tough for corrosion prevention and offers scratch resistance without changing frictional coefficient.

Black Top Coat SG offers excellent pot life so long water is present in the system. As such, the resin does not cure at room temperature for a long time. It contains slow evaporating solvents.

#### How to use Black Top Coat SG

The solution is provided in ready to use form and can be used directly with simple mixing , in case any settlement of pigment. Slow speed stirred may be employed to have uniform suspension.

#### Control :

1. Viscosity : It is measured by ZHAN Cup 2  
Range : 30 Sec to 42 Sec @ 28 Deg C. for Dip Spin and Spray application
2. Solid Content : 24 to 32 %
3. Temperature : Room ( 15 to 30 Deg C ) : In case of range above 30 Deg C, it is recommended to use cooling coils in-order to avoid solvent evaporation, however heating is not recommended to increase the temperature to avoid fire hazard, instead viscosity should be adjusted to optimum range by addition of water or the supplied concentrate paint.
4. Dwell time : Uniform coating is obtained almost instantaneously when the system is in contact with parts, however dwell time up to 20 sec should be sufficient to achieve coating.
5. Thickness : Within the stipulated viscosity range , the thickness on drying is in the range 4 to 6 microns for Dip Spin application. Second coat after curing may be obtained as desired, where in the thickness achieved is same as first coat. In application of Spray the thickness depends on the spraying condition. However, the thickness achieved is higher than dip spin method.
6. Curing : The resin system is best cured between 180 to 220 Deg C for 20 min. For bigger jobs the time may be increased as rise in the temperature of the part will take some time of curing. Do not over cure the coating which can lose the luster and also may cause flaking off.  
Typical COF Value ( Coefficient of Friction ) is in the range of 0.08 to 0.12 Mu
7. Consumption : Consumption the system depends on the thickness and also lot on application method. Care has been taken by special additives to have enough thixotropic property. However a broad range may be established between 0.009 to 0.0010 Kgs per 1 Kgs of Fasteners ( M6 or M8) for two coats.

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Storage and Handling : Black Top Coat SG is an organic water/solvent based system and requires care to handle. Keep the products away from sunlight and heat preferably in dark , cool area. Use protective goggles and gloves while handling Use of mask is strongly recommended.