

## Number 1

### **TECTYL<sup>®</sup> 400C and TECTYL<sup>®</sup> 127B AUTOMOTIVE AND TRUCK LEAF SPRING APPLICATION**

Tectyl<sup>®</sup> 400C and Tectyl<sup>®</sup> 127B Aluminum are used by many leaf spring manufacturers, not only because they are easily applied by dip application, but the firm film is highly resistant to salt corrosion and provides lubrication between the leaves, reducing fretting corrosion.

Equipment manufacturers have recognized the value of this type of coating. Tectyl<sup>®</sup> 127B is approved by Fruehauf Corporation under their specification STK-70073 and Tectyl<sup>®</sup> 400C is approved under Ford Motor Company specification M7C-16A or EST-M7C-16A for Ford Truck Division.

Application of Tectyl<sup>®</sup> 400C or Tectyl<sup>®</sup> 127B by dipping leaf spring assemblies is fast and economical. One procedure used by a large spring manufacturer is:

- Steel strips are stamped, formed to leaf size, and heat treated. The leaves are shot-peened and assembled. On certain assemblies, the leaf is roller coated with Tectyl<sup>®</sup> on the shot-peened surface before assembly.
- The leaf spring assemblies are stacked in layers in alternate directions on two 2"x4" boards set on the 2" edge. The entire "pallet" is strapped and moved to the dip tank. The pallet containing 18 to 50 spring assemblies, depending on size of the spring, is immersed in the Tectyl<sup>®</sup> for 2 to 5 minutes to allow complete coverage and penetration of the fluid between the leaves. The pallet is allowed to drain over the dip tank for 10 to 15 minutes. (If side drain racks are used, 5 minutes over the tank and 10 minutes over the drain racks is recommended.) After draining, the pallet is moved by lift truck to the outside storage area. (Some manufacturers run the pallet from the drain racks by conveyor through a drying tunnel. The tunnel is equipped with side blower fans and overhead exhaust fans. Tunnel time is approximately 15 minutes.)

Quality control on the Tectyl<sup>®</sup> consistency is maintained by checking the viscosity before each shift with a Zahn Cup Viscometer. The viscosity is controlled to a range which maintains a 0.6 to 1.0 mils dry film thickness on the springs. The desired dry film thickness is determined by a combination of temperature, viscosity and solids content of the Tectyl<sup>®</sup> products. These parameters should be determined during trial testing to ensure optimum performance of the coatings. Aliphatic mineral spirits is added to replace solvent lost by evaporation, thus maintaining the proper viscosity and solids content.