

# TECHNICAL DATA SHEET

## QH DIE SLICK™ SX SERIES DIE RELEASE AGENTS – WATER-BASED

QH DIE SLICK™ SX series products are high performance water-based die lubricants optimized for the specific demands of high pressure die casting of structural aluminum alloys.

Products in this range are formulated with unique and innovative Smart Polymer (SP) technology, a thermodynamically reactive polymer system that forms a tough barrier on hot areas of the die, while lightly coating cooler, less demanding areas. This results in reduced solder, producing bright and clean castings and eliminates the need for over-spraying in hot die areas.

### Applications

QH DIE SLICK™ SX series products are water-based high pressure die casting lubricants designed to offer maximum benefits when used diluted in water.

Products in this range are formulated to meet the demands of structural die casting by promoting excellent metal flow and minimizing porosity.

These versatile products are ideal for the casting of modern structural alloys.

### Recommendation for Use

QH DIE SLICK™ SX series products are designed to be used in diluted form and applied to the die face before each casting cycle, with water to lubricant dilution ratios typically in the range 80:1 to 200:1. Application of the lubricant can be tailored to the specific needs of each die casting facility to ensure optimum amount of product is applied.

To maximize the benefits of QH DIE SLICK™ SX Series lubricants, Quaker Houghton recommends use of one of its high specification QH FLUIDCAST™ lubricant mixing and delivery systems to ensure accurate control of die lubricant concentration and application quantity, improving process consistency, efficiency and part quality.

### Benefits

- Contains Smart Polymer technology, provides optimum protection for challenging areas without building up on the die face.
- Maximum protection on all areas of the die, prevents solder and minimizes die maintenance
- Minimizes porosity, without sacrificing performance
- Promotes excellent metal flow, enhanced performance for complex operations
- Wax-free and low-wax formulations, minimizes overspray build-up on the die and other surfaces
- Castings are bright and shiny, does not cause paint or coating problems

### Concentration Control

QH DIE SLICK™ SX series products perform optimally within the established concentration range determined for your operation. Regular monitoring of product dilution ratio in water is recommended to ensure effective application. QH FLUIDCAST™ application equipment offers automated monitoring and control capabilities.

For manual monitoring, Quaker Houghton recommends the use of a handheld colorimeter in conjunction with a standard calibration curve for rapid determination of product dilution ratio. Please consult your Quaker Houghton representative for assistance or calibration samples.



# QH DIE SLICK™ SX SERIES

## DIE RELEASE AGENTS – WATER-BASED

### Health, Safety and Handling

Please consult the Safety Data Sheet (SDS) for information on storage, safe handling and disposal. The conditions or methods of handling, storage, use and disposal of the product are beyond our reasonable control – we assume no liability for any ineffectiveness of the product or any injury or damage, arising out of or in connection with these conditions. This product has a shelf life of 12 months, and it should be stored in a tightly sealed container in temperatures between 41°F (5°C) and 95°F (35°C). Do not freeze.

### Properties

The series comprises a range of lubricants with varying amounts of lubricating power, to suit a wide range of customer needs.

Series consists of the following product families:

QH DIE SLICK™ 12xx	Versatile product with semi-synthetics for improved wetting
QH DIE SLICK™ 13xx	Low-wax lubricant for high performance in complex operations
QH DIE SLICK™ 14xx	Wax-free product for exceptional performance in optimized processes
QH DIE SLICK™ 55xx	Polysiloxane-free formulations for demanding post-casting processing

All reasonable care has been taken to ensure this publication is accurate upon issue. Such information may be affected by changes subsequent to issue. This Technical Data Sheet is to be used solely for this product. Prior to any use, consult the Safety Data Sheet (SDS) for information on hazard risks and product use parameters. All liability and all warranties express or implied are hereby excluded as to product performance results, the accuracy of these data including any warranty of merchantability or fitness for any purpose.

