

# ULTRAFORM 1050

Performance you can trust

## CUSTOMER

The Royal Mint is a government operated, worldwide business, manufacturing coins. In the UK the Royal Mint supplies coins that are crucial to the daily transactions that underpin life; and as a maker of beautifully crafted collector coins it gives pleasure and opportunities to many. Beyond the United Kingdom the Royal Mint supplies some 100 issuing authorities around the world with coins and blanks. Blanks are metal discs, which are minted into coins. It is the world's leading export mint, with around 15 per cent of the worldwide market.

## APPLICATION DETAILS AND ISSUES

ROCOL was requested to look at a manufacturing problem encountered as The Royal Mint was manufacturing pre-production batches of the new £1 coin.

The new coin, planned for introduction in 2017 is a bi-metal design featuring a ten-sided 'Decagon' shape with intermediate milled edges; top-secret materials have features included to prevent counterfeit coins being produced.

Initial press runs caused concern, with the milled edges often suffering 'collar drag' – a situation where the material scored and material dragged up the sides of the coin. This problem occurred in about 10% of the coins produced which is totally unacceptable considering the planned initial production run will be 3 billion+ coins.

The traditional lubricant utilised was a food-grade 22 viscosity mineral oil, which additionally left oily residue on the coins, if this could be reduced or eliminated then that would be a big bonus. Any proposed alternative would have to solve the collar-drag issue and also produce minimum residues and importantly not affect the security features of the coin material.

## RECOMMENDED PRODUCTS AND SERVICES

Upon consideration of the client's needs we proposed an initial trial of Rocol ULTRAFORM 1050

## BENEFITS / COST SAVINGS

- ▶ Initial trials showed that ULTRAFORM 1050 addressed all of the needs.
- ▶ QA was improved and the 10% collar-drag failure rate was solved.
- ▶ Coins were produced with little or no oil residue
- ▶ No ill effects were noticed concerning material compatibility or security features
- ▶ As an added bonus the product was 17% cheaper!

**The Royal Mint are now considering moving ULTRAFORM™ 1050 to other production lines.**

**All new £1 coin production is currently utilising Rocol ULTRAFORM 1050.**

