



■ **NEO**
Low-Ag and No-Ag NEO Exhibit Excellent Wettability

NEO M35 and NEO M20 are activated resin flux cored solders with a 0.3 percent silver (Ag) content and 0 percent Ag content (no Ag), respectively. These solders have been developed in pursuit of price reductions.

Normally, solder wettability decreases with decreasing silver content. However, NEO M35 and NEO M20 quickly wet and enable soldering in a short time although they are low-Ag and no-Ag solders. Furthermore, in soldering works using a soldering iron, both low-Ag and no-Ag alloys exhibit good wettability on a copper plate. Visual inspection is easy as flux residues are transparent pale yellow.



■ **LSC**
LSC Combines High Insulation Reliability and Low Price

LSC M35 and LSC M20 are weakly activated resin flux cored solders with 0.3 percent Ag (low-Ag) and 0 percent Ag (no-Ag), respectively. They are also results of the pursuit of price reduction.

Normally, solder wettability decreases with decreasing silver content. However, LSC M35 and LSC M20 maintain equivalent workability with that of M705 in soldering by a solder iron and in laser soldering although they are low-Ag and no-Ag solders.

They also feature less splattering of flux compared with NEO, and ensures good work environment. As they use weakly active flux, they maintain high insulation resistance values even after being left under high-temperature and high-humidity conditions for a long period of time.



■ **M40-LS720HF**
Low-Priced Solder Paste with Performance Equivalent to or Higher than M705

M40-LS720HF is a low-Ag halogen-free solder paste, which contains 1 percent Ag. It has been developed to challenge lower price.

M40-LS720HF has achieved a melting point, which is almost the same as that of M705, through the addition of an element with a low melting point, enabling mounting with a profile equivalent to that of M705. For this reason, users can immediately use this low-priced material. As M40-LS720HF shows a twin-peak-type melting behavior, it can suppress tombstoning stemming from rapid wetting. Furthermore, as solidus temperature is lower than that of M705, it has a wider melting temperature range. Hence, it secures the same workability and wettability with those of M705 despite its low-Ag feature.

M40-LS720HF has achieved thermal fatigue resistance better than that of M705 by strengthening its solid solution through the addition of bismuth (Bi), indium (In) and antimony (Sb), overcoming the weakness of low-Ag solders.



■ **M705-NSV300**
Transfer Paste for 3D Package on Package (PoP) Packaging Prevents Incomplete Soldering

M705-NSV300 is a halogen-free solder paste for transfer, which is aimed at the reduction of defects in the mounting of balls.

M705-NSV300 is a solder paste exclusively for transfer, which makes full use of rheology. It provides excellent solder transfer in specific amounts, which could not be achieved by solder pastes for printing. It has dramatically reduced contact non-wet failures in ball-to-ball stacking. Naturally, it ensures higher reliability than the mounting of balls using flux only, and achieves 0 percent contact non-wet failure rate. M705-NSV300 is also strong against warpage of substrate and is capable of reducing contact non-wet failure stemming from warpage.