

# **Technical Data Sheet**

SM1137-1

# Alpha-Fry™ EGS SAC305, SAC300, SAC405, SAC350, SAC400

LEAD FREE SOLDER ALLOY

## **DESCRIPTION**

Alpha-Fry<sup>TM</sup> EGS SAC305 and EGS SAC405 are the leading Pb-free solders available in the industry. They show good wettability and solderability, which in turn improve the production yield. Their proven mechanical reliability and electrical properties makes it suitable to be used in various industrial applications.

#### **APPLICATION**

Alpha-Fry™ EGS SAC305 and EGS SAC405 are suitable for wave and dipping soldering applications. A solder pot temperature of 255 - 265°C is recommended, depending on the soldering application and board designs. Recommended top-up solder is EGS SAC300 (for EGS SAC305) and EGS SAC350 or EGS SAC400 (for EGS SAC405).

#### ALLOY COMPOSITION SPECIFICATION

Element	ALPHA-FRY EGS %				
	SAC305	SAC405	SAC300	SAC350	SAC400
	(Sn96.5Ag3.0Cu0.5)	(Sn95.5Ag4.0Cu0.5)	(Sn97.0Ag3.0)	(Sn96.5Ag3.5)	(Sn96.0Ag4.0)
Sn	Balance	Balance	Balance	Balance	Balance
Ag	3.0 +/- 0.2	$4.0\pm0.2$	3.0 +/- 0.2	$3.5\pm0.2$	$4.0 \pm 0.2$
Cu	0.5 +/- 0.1	$0.5 \pm 0.1$	0.050 max	0.050 max	0.050 max
Pb	0.100 max	0.100 max	0.100 max	0.100 max	0.100 max
Sb	0.100 max	0.100 max	0.100 max	0.100 max	0.100 max
Zn	0.001 max	0.001 max	0.001 max	0.001 max	0.001 max
Fe	0.020 max	0.020 max	0.020 max	0.020 max	0.020 max
As	0.030 max	0.030 max	0.030 max	0.030 max	0.030 max
Ni	0.010 max	0.010 max	0.010 max	0.010 max	0.010 max
Bi	0.100 max	0.100 max	0.100 max	0.100 max	0.100 max
Cd	0.002 max	0.002 max	0.002 max	0.002 max	0.002 max
Al	0.001 max	0.001 max	0.001 max	0.001 max	0.001 max
ln	0.050 max	0.050 max	0.050 max	0.050 max	0.050 max
Au	0.050 max	0.050 max	0.050 max	0.050 max	0.050 max

### **AVAILABLE PACKAGING**

Alpha-Fry™ EGS is available in bars, 20kg per box. For other metal forms requirement, please contact our Sales Department.

#### **HEALTH & SAFETY**

Please refer to MSDS for advice on proper handling and safety instructions.

#### **STORAGE**

Store the solder bar in a cool, dry and non-corrosive environment. Wrap up the solder bar when not in use to reduce exposure to environment.

#### SHELF LIFE

Alpha-Fry™ EGS can be kept for 5 years, if proper storage conditions are observed. After certain period of storage, the solder surface shininess may reduce and a dull shade of gray or light yellow may appear. However, this is only a surface phenomenon and will not affect the product functionality.