

**RoHS 2002/95/EC Compliance****Directive 2002/95/EC of the European Parliament and of the Council**

On January 27, 2003, the European Union has issued a directive to regulate the restriction of the use of certain hazardous substances in electric and electronic equipment. This directive (number 2002/95/EC (RoHS)) prohibits the use of lead (Pb), mercury (Hg), cadmium (Cd), hexavalent chromium (Cr6), polybrominated biphenyl (PBB) and polybrominated diphenyl ether (PBDE) in all electric and electronic parts circulating within the EU after July 1, 2006.

**Roadmap RoHS / lead-free**

So far, the product lines SMT, SMS, SMK, SMP, BRS, BVB, BVH, BVS, BVE, BVR, LMS, LMP, LMK, SMH, PMH, PMU, PMB, BKW, BVD, BVM-F and BVO are already manufactured in RoHS compliance.

At the beginning of 2005, Isabellenhütte's components production has already been changed to lead-free manufacture of the formerly Pb-containing product lines A, BEK, BRQ, BRM, BRK, BVM, C-N, E-N, IWN, PBH, PBV, PBW, PL, PLC, PS, PSB, PVG, REG, RUG, R-Z, SMR, SMV and RTO. Since then, there is a reference to the RoHS compliance on each order confirmation concerning these product lines.

As a result, all components of Isabellenhütte are in compliance with RoHS, with the exception of some of our products (see page 2).

In a transitional period it is possible for the formerly Pb-including product lines that even after 3 months of lead-free production, customer related order backlogs on stock are still delivered with materials including Pb in particular cases.

For any remainders of Pb-including materials, please contact our distributors Techtronik GmbH, email: info@techtronik.de (product lines SMR, SMV) and Bader GmbH & Co. KG, email: info@bader-koeln.de (other product lines).

<b>2002/95/EC (RoHS) COMPLIANCE</b>		
<b>Type</b>	<b>2002/95/EC (RoHS) compliance</b>	<b>Pb-free</b>
<b>A-H, BEK, BRQ, BRM, BRK, BVM, PBH, PBU, PBV, PBW, PL, PLC, PS, PSB, PVG, REG, RUG, R-Z, SMB, SMR, SMV, RTO</b>	yes, since 01.01.2005	yes, since 01.01.2005
<b>SMT, SMS, SMK, SMP, BRS, BVB, BVH, BVS, BVE, BVR, LMS, LMP, LMK, SMH, PMH, PMU, PMB, BKW, BVD, BVM-F BVO</b>	yes	yes
<b>PMA*, PMD*</b>	no	no
<b>Cu-MANGANIN®-Cu shunts</b>	yes	yes
<b>A-N*, C-N*, E-N*, IWN*</b>	no	yes, since 01.01.2005

\* The changeover to RoHS compliance is planned for the end of 2005.



# ISABELLENHÜTTE

## Labelling of lead/lead-free products

All products switched to lead-free are marked with a green label on the delivery note as well as on the pre-packaging/outer packaging.  
 If components including Pb are still delivered in 2005, these are marked with a red label "Pb included" on the delivery note as well as on the pre-packaging/outer packaging of the coils.  
 The components which always have been produced lead-free are unmarked.



Pb-free		Label			Datecode on label and product
before 01.01.2005	after 01.01.2005	delivery note	pre-packaging	outer packaging	identification
yes	yes	no	no	no	
no	yes	green: Pb-free	green: Pb-free	green : Pb-free	T = lead-free (2005) S = pb-included (2004)
no	no	red:Pb-included	red: Pb-included	red: Pb-included	

## Solderability

The new (lead-free) components are compatible and solderability is still given. There should not arise any problems neither with conventional nor with lead-free assembly soldering processes. The following restrictions are valid: peak max. 260 °C; max. 40 seconds over 255 °C; max. 90 seconds over 217 °C.

SOLDERING RESTRICTIONS			
Reflow, wave and infrared soldering			
Temperature ( °C )	260	255	217
Time ( s )	peak	40	90

