

Test Report

JOYIN COMPANY LIMITED
39-1, SHIU LIU TUNG, TUNG LIU LI, YANGMEI,
TAOYUAN 326, TAIWAN R.O.C.

Report No. : CE/2005/14724A
Date : 2005/02/02
Page : 1 of 10

The following merchandise was (were) submitted and identified by the client as :

Type of Product : VARISTOR
Style/Item No : PLEASE REFER TO THE PAGE 5 TO 7
Sample Received : 2005/01/26
Testing Date : 2005/01/26 TO 2005/02/02

=====
Test Result : - Please see the next page -


Daniel Yeh, M.R. / Operation Manager
Signed for and on behalf of
SGS TAIWAN LTD.

Test Report

JOYIN COMPANY LIMITED
39-1, SHIU LIU TUNG, TUNG LIU LI, YANGMEI,
TAOYUAN 326, TAIWAN R.O.C.

Report No. : CE/2005/14724A
Date : 2005/02/02
Page : 2 of 10

Test Result

PART NAME NO.1 : MIXED ALL PARTS (PLEASE REFER TO THE PHOTO ATTACHED)
PART NAME NO.2 : MIXED ALL PARTS (PLEASE REFER TO THE PHOTO ATTACHED)
PART NAME NO.3 : MIXED ALL PARTS (PLEASE REFER TO THE PHOTO ATTACHED)
PART NAME NO.4 : MIXED ALL PARTS (PLEASE REFER TO THE PHOTO ATTACHED)
PART NAME NO.5 : MIXED ALL PARTS (PLEASE REFER TO THE PHOTO ATTACHED)
PART NAME NO.6 : MIXED ALL PARTS (PLEASE REFER TO THE PHOTO ATTACHED)

| Test Item (s): | Unit | Method | MDL | Result | | | | |
|---|------|---|--------|--------|------|------|------|------|
| | | | | No.1 | No.2 | No.3 | No.4 | No.5 |
| Monobromobiphenyl | % | With reference to USEPA3540C or USEPA3550C. Analysis was performed by HPLC/DAD, LC/MS or GC/MS. (prohibited by 2002/95/EC (RoHS), 83/264/EEC, and 76/769/EEC) | 0.0005 | N.D. | N.D. | N.D. | N.D. | N.D. |
| Dibromobiphenyl | % | | 0.0005 | N.D. | N.D. | N.D. | N.D. | N.D. |
| Tribromobiphenyl | % | | 0.0005 | N.D. | N.D. | N.D. | N.D. | N.D. |
| Tetrabromobiphenyl | % | | 0.0005 | N.D. | N.D. | N.D. | N.D. | N.D. |
| Pentabromobiphenyl | % | | 0.0005 | N.D. | N.D. | N.D. | N.D. | N.D. |
| Hexabromobiphenyl | % | | 0.0005 | N.D. | N.D. | N.D. | N.D. | N.D. |
| Heptabromobiphenyl | % | | 0.0005 | N.D. | N.D. | N.D. | N.D. | N.D. |
| Octabromobiphenyl | % | | 0.0005 | N.D. | N.D. | N.D. | N.D. | N.D. |
| Nonabromobiphenyl | % | | 0.0005 | N.D. | N.D. | N.D. | N.D. | N.D. |
| Decabromobiphenyl | % | | 0.0005 | N.D. | N.D. | N.D. | N.D. | N.D. |
| Total PBBs (Polybrominated biphenyls)/Sum of | % | | - | N.D. | N.D. | N.D. | N.D. | N.D. |
| Monobromobiphenyl | % | With reference to USEPA3540C or USEPA3550C. Analysis was performed by HPLC/DAD, LC/MS or GC/MS. (prohibited by 2002/95/EC (RoHS), 83/264/EEC, and 76/769/EEC) | 0.0005 | N.D. | N.D. | N.D. | N.D. | N.D. |
| Dibromobiphenyl ether | % | | 0.0005 | N.D. | N.D. | N.D. | N.D. | N.D. |
| Tribromobiphenyl ether | % | | 0.0005 | N.D. | N.D. | N.D. | N.D. | N.D. |
| Tetrabromobiphenyl | % | | 0.0005 | N.D. | N.D. | N.D. | N.D. | N.D. |
| Pentabromobiphenyl | % | | 0.0005 | N.D. | N.D. | N.D. | N.D. | N.D. |
| Hexabromobiphenyl | % | | 0.0005 | N.D. | N.D. | N.D. | N.D. | N.D. |
| Heptabromobiphenyl | % | | 0.0005 | N.D. | N.D. | N.D. | N.D. | N.D. |
| Octabromobiphenyl ether | % | | 0.0005 | N.D. | N.D. | N.D. | N.D. | N.D. |
| Nonabromobiphenyl | % | | 0.0005 | N.D. | N.D. | N.D. | N.D. | N.D. |
| Decabromobiphenyl | % | | 0.0005 | N.D. | N.D. | N.D. | N.D. | N.D. |
| Total PBBEs(PBDEs) (Polybrominated biphenyl ethers)/Sum of above | % | | - | N.D. | N.D. | N.D. | N.D. | N.D. |

Test Report

JOYIN COMPANY LIMITED
39-1, SHIU LIU TUNG, TUNG LIU LI, YANGMEI,
TAOYUAN 326, TAIWAN R.O.C.

Report No. : CE/2005/14724A
Date : 2005/02/02
Page : 3 of 10

| Test Item (s): | Unit | Method | MDL | Result | | | | |
|--------------------|------|--|-----|--------|------|------|------|------|
| | | | | No.1 | No.2 | No.3 | No.4 | No.5 |
| Chromium VI (Cr+6) | ppm | UV-VIS after reference to US EPA 3060A. | 2 | N.D. | N.D. | N.D. | N.D. | N.D. |
| Cadmium (Cd) | ppm | ICP-AES after reference to EN 1122, method B:2001 or other acid digestion. | 2 | N.D. | N.D. | N.D. | N.D. | N.D. |
| Mercury (Hg) | ppm | ICP-AES after reference to US EPA 3052 or other acid digestion. | 2 | N.D. | N.D. | N.D. | N.D. | N.D. |
| Lead (Pb) | ppm | ICP-AES after reference to US EPA 3050B or other acid digestion. | 2 | 48.6 | 37.4 | 37.3 | 46.8 | 24.9 |

| Test Item (s): | Unit | Method | MDL | Result | | | | |
|---|------|---|--------|--------|------|------|------|-------|
| | | | | No.6 | No.7 | No.8 | No.9 | No.10 |
| Monobromobiphenyl | % | With reference to USEPA3540C or USEPA3550C. Analysis was performed by HPLC/DAD, LC/MS or GC/MS. (prohibited by 2002/95/EC (RoHS), 83/264/EEC, and 76/769/EEC) | 0.0005 | N.D. | --- | --- | --- | --- |
| Dibromobiphenyl | % | | 0.0005 | N.D. | --- | --- | --- | --- |
| Tribromobiphenyl | % | | 0.0005 | N.D. | --- | --- | --- | --- |
| Tetrabromobiphenyl | % | | 0.0005 | N.D. | --- | --- | --- | --- |
| Pentabromobiphenyl | % | | 0.0005 | N.D. | --- | --- | --- | --- |
| Hexabromobiphenyl | % | | 0.0005 | N.D. | --- | --- | --- | --- |
| Heptabromobiphenyl | % | | 0.0005 | N.D. | --- | --- | --- | --- |
| Octabromobiphenyl | % | | 0.0005 | N.D. | --- | --- | --- | --- |
| Nonabromobiphenyl | % | | 0.0005 | N.D. | --- | --- | --- | --- |
| Decabromobiphenyl | % | | 0.0005 | N.D. | --- | --- | --- | --- |
| Total PBBs (Polybrominated biphenyls)/Sum of | % | | - | N.D. | --- | --- | --- | --- |

Test Report

JOYIN COMPANY LIMITED
39-1, SHIU LIU TUNG, TUNG LIU LI, YANGMEI,
TAOYUAN 326, TAIWAN R.O.C.

Report No. : CE/2005/14724A
Date : 2005/02/02
Page : 4 of 10

| Test Item (s): | Unit | Method | MDL | Result | | | | |
|---|------|---|--------|--------|------|------|------|-------|
| | | | | No.6 | No.7 | No.8 | No.9 | No.10 |
| Monobromobiphenyl | % | With reference to USEPA3540C or USEPA3550C. Analysis was performed by HPLC/DAD, LC/MS or GC/MS. (prohibited by 2002/95/EC (RoHS), 83/264/EEC, and 76/769/EEC) | 0.0005 | N.D. | --- | --- | --- | --- |
| Dibromobiphenyl ether | % | | 0.0005 | N.D. | --- | --- | --- | --- |
| Tribromobiphenyl ether | % | | 0.0005 | N.D. | --- | --- | --- | --- |
| Tetrabromobiphenyl | % | | 0.0005 | N.D. | --- | --- | --- | --- |
| Pentabromobiphenyl | % | | 0.0005 | N.D. | --- | --- | --- | --- |
| Hexabromobiphenyl | % | | 0.0005 | N.D. | --- | --- | --- | --- |
| Heptabromobiphenyl | % | | 0.0005 | N.D. | --- | --- | --- | --- |
| Octabromobiphenyl ether | % | | 0.0005 | N.D. | --- | --- | --- | --- |
| Nonabromobiphenyl | % | | 0.0005 | N.D. | --- | --- | --- | --- |
| Decabromobiphenyl | % | | 0.0005 | N.D. | --- | --- | --- | --- |
| Total PBBEs(PBDEs) (Polybrominated biphenyl ethers)/Sum of above | % | | - | N.D. | --- | --- | --- | --- |

| Test Item (s): | Unit | Method | MDL | Result | | | | |
|--------------------|------|--|-----|--------|------|------|------|-------|
| | | | | No.6 | No.7 | No.8 | No.9 | No.10 |
| Chromium VI (Cr+6) | ppm | UV-VIS after reference to US EPA 3060A. | 2 | N.D. | --- | --- | --- | --- |
| Cadmium (Cd) | ppm | ICP-AES after reference to EN 1122, method B:2001 or other acid digestion. | 2 | N.D. | --- | --- | --- | --- |
| Mercury (Hg) | ppm | ICP-AES after reference to US EPA 3052 or other acid digestion. | 2 | N.D. | --- | --- | --- | --- |
| Lead (Pb) | ppm | ICP-AES after reference to US EPA 3050B or other acid digestion. | 2 | 63.5 | --- | --- | --- | --- |

- NOTE: (1) N.D. = Not detected (<MDL)
 (2) ppm = mg/kg
 (3) MDL = Method Detection Limit
 (4) " - " = No Regulation
 (5) " --- " = Not Applicable

Test Report

JOYIN COMPANY LIMITED
39-1, SHIU LIU TUNG, TUNG LIU LI, YANGMEI,
TAOYUAN 326, TAIWAN R.O.C.

Report No. : CE/2005/14724A
Date : 2005/02/02
Page : 5 of 10

Style/ Item No : JVR05N180M65 / JVR05N220L65 / JVR05N270K65 / JVR05N330K65 / JVR05N390K65 /
JVR05N470K65 / JVR05N560K65 / JVR05N680K65 / JVR05N820K65 / JVR05N101K65 /
JVR05N121K65 / JVR05N151K65 / JVR05N181K65 / JVR05N201K65 / JVR05N221K65 /
JVR05N241K65 / JVR05N271K65 / JVR05N301K65 / JVR05N331K65 / JVR05N361K65 /
JVR05N391K65 / JVR05N431K65 / JVR05N471K65 / JVR05N511K65 / JVR05N561K65 /
JVR05N621K65 / JVR05N681K65 / JVR05N751K65 / JVR07N180M65 / JVR07N220L65 /
JVR07N270K65 / JVR07N330K65 / JVR07N390K65 / JVR07N470K65 / JVR07N560K65 /
JVR07N680K65 / JVR07N820K65 / JVR07N101K65 / JVR07N121K65 / JVR07N151K65 /
JVR07N181K65 / JVR07N201K65 / JVR07N221K65 / JVR07N241K65 / JVR07N271K65 /
JVR07N301K65 / JVR07N331K65 / JVR07N361K65 / JVR07N391K65 / JVR07N431K65 /
JVR07N471K65 / JVR07N511K65 / JVR07N561K65 / JVR07N621K65 / JVR07N681K65 /
JVR07N751K65 / JVR07N781K65 / JVR07N821K65 / JVR10N180M87 / JVR10N220L87 /
JVR10N270K87 / JVR10N330K87 / JVR10N390K87 / JVR10N470K87 / JVR10N560K87 /
JVR10N680K87 / JVR10N820K87 / JVR10N101K87 / JVR10N121K87 / JVR10N151K87 /
JVR10N181K87 / JVR10N201K87 / JVR10N221K87 / JVR10N241K87 / JVR10N271K87 /
JVR10N301K87 / JVR10N331K87 / JVR10N361K87 / JVR10N391K87 / JVR10N431K87 /
JVR10N471K87 / JVR10N511K87 / JVR10N561K87 / JVR10N621K87 / JVR10N681K87 /
JVR10N751K87 / JVR10N781K87 / JVR10N821K87 / JVR10N911K87 / JVR10N102K87 /
JVR10N112K87 / JVR10N182K87 / JVR14N180M87 / JVR14N220L87 / JVR14N270K87 /
JVR14N330K87 / JVR14N390K87 / JVR14N470K87 / JVR14N560K87 / JVR14N680K87 /
JVR14N820K87 / JVR14N101K87 / JVR14N121K87 / JVR14N151K87 / JVR14N181K87 /
JVR14N201K87 / JVR14N221K87 / JVR14N241K87 / JVR14N271K87 / JVR14N301K87 /
JVR14N331K87 / JVR14N361K87 / JVR14N391K87 / JVR14N431K87 / JVR14N471K87 /
JVR14N511K87 / JVR14N561K87 / JVR14N621K87 / JVR14N681K87 / JVR14N751K87 /
JVR14N781K87 / JVR14N821K87 / JVR14N911K87 / JVR14N102K87 / JVR14N112K87 /
JVR14N182K87 / JVR20N180M11 / JVR20N220L11 / JVR20N270K11 / JVR20N330K11 /
JVR20N390K11 / JVR20N470K11 / JVR20N560K11 / JVR20N680K11 / JVR20N820K11 /
JVR20N101K11 / JVR20N121K11 / JVR20N151K11 / JVR20N181K11 / JVR20N201K11 /
JVR20N221K11 / JVR20N241K11 / JVR20N271K11 / JVR20N301K11 / JVR20N331K11 /
JVR20N361K11 / JVR20N391K11 / JVR20N431K11 / JVR20N471K11 / JVR20N511K11 /
JVR20N561K11 / JVR20N621K11 / JVR20N681K11 / JVR20N751K11 / JVR20N781K11 /

Test Report

JOYIN COMPANY LIMITED
39-1, SHIU LIU TUNG, TUNG LIU LI, YANGMEI,
TAOYUAN 326, TAIWAN R.O.C.

Report No. : CE/2005/14724A
Date : 2005/02/02
Page : 6 of 10

Style/ Item No : JVR20N821K11 / JVR20N911K11 / JVR20N102K11 / JVR20N112K11 / JVR20N182K11 /
JVR05S180M65 / JVR05S220L65 / JVR05S270K65 / JVR05S330K65 / JVR05S390K65 /
JVR05S470K65 / JVR05S560K65 / JVR05S680K65 / JVR05S820K65 / JVR05S101K65 /
JVR05S121K65 / JVR05S151K65 / JVR05S181K65 / JVR05S201K65 / JVR05S221K65 /
JVR05S241K65 / JVR05S271K65 / JVR05S301K65 / JVR05S331K65 / JVR05S361K65 /
JVR05S391K65 / JVR05S431K65 / JVR05S471K65 / JVR05S511K65 / JVR05S561K65 /
JVR05S621K65 / JVR05S681K65 / JVR05S751K65 / JVR07S180M65 / JVR07S220L65 /
JVR07S270K65 / JVR07S330K65 / JVR07S390K65 / JVR07S470K65 / JVR07S560K65 /
JVR07S680K65 / JVR07S820K65 / JVR07S101K65 / JVR07S121K65 / JVR07S151K65 /
JVR07S181K65 / JVR07S201K65 / JVR07S221K65 / JVR07S241K65 / JVR07S271K65 /
JVR07S301K65 / JVR07S331K65 / JVR07S361K65 / JVR07S391K65 / JVR07S431K65 /
JVR07S471K65 / JVR07S511K65 / JVR07S561K65 / JVR07S621K65 / JVR07S681K65 /
JVR07S751K65 / JVR07S781K65 / JVR07S821K65 / JVR10S180M87 / JVR10S220L87 /
JVR10S270K87 / JVR10S330K87 / JVR10S390K87 / JVR10S470K87 / JVR10S560K87 /
JVR10S680K87 / JVR10S820K87 / JVR10S101K87 / JVR10S121K87 / JVR10S151K87 /
JVR10S181K87 / JVR10S201K87 / JVR10S221K87 / JVR10S241K87 / JVR10S271K87 /
JVR10S301K87 / JVR10S331K87 / JVR10S361K87 / JVR10S391K87 / JVR10S431K87 /
JVR10S471K87 / JVR10S511K87 / JVR10S561K87 / JVR10S621K87 / JVR10S681K87 /
JVR10S751K87 / JVR10S781K87 / JVR10S821K87 / JVR10S911K87 / JVR10S102K87 /
JVR10S112K87 / JVR10S182K87 / JVR14S180M87 / JVR14S220L87 / JVR14S270K87 /
JVR14S330K87 / JVR14S390K87 / JVR14S470K87 / JVR14S560K87 / JVR14S680K87 /
JVR14S820K87 / JVR14S101K87 / JVR14S121K87 / JVR14S151K87 / JVR14S181K87 /
JVR14S201K87 / JVR14S221K87 / JVR14S241K87 / JVR14S271K87 / JVR14S301K87 /
JVR14S331K87 / JVR14S361K87 / JVR14S391K87 / JVR14S431K87 / JVR14S471K87 /
JVR14S511K87 / JVR14S561K87 / JVR14S621K87 / JVR14S681K87 / JVR14S751K87 /
JVR14S781K87 / JVR14S821K87 / JVR14S911K87 / JVR14S102K87 / JVR14S112K87 /
JVR14S182K87 / JVR20S180M11 / JVR20S220L11 / JVR20S270K11 / JVR20S330K11 /
JVR20S390K11 / JVR20S470K11 / JVR20S560K11 / JVR20S680K11 / JVR20S820K11 /
JVR20S101K11 / JVR20S121K11 / JVR20S151K11 / JVR20S181K11 / JVR20S201K11 /
JVR20S221K11 / JVR20S241K11 / JVR20S271K11 / JVR20S301K11 / JVR20S331K11 /

Test Report

JOYIN COMPANY LIMITED
39-1, SHIU LIU TUNG, TUNG LIU LI, YANGMEI,
TAOYUAN 326, TAIWAN R.O.C.

Report No. : CE/2005/14724A
Date : 2005/02/02
Page : 7 of 10

Style/ Item No : JVR20S361K11 / JVR20S391K11 / JVR20S431K11 / JVR20S471K11 / JVR20S511K11 /
JVR20S561K11 / JVR20S621K11 / JVR20S681K11 / JVR20S751K11 / JVR20S781K11 /
JVR20S821K11 / JVR20S911K11 / JVR20S102K11 / JVR20S112K11 / JVR20S182K11
JVR14U201K87 / JVR14U221K87 / JVR14U241K87 / JVR20U201K11 / JVR20U221K11 /
JVR0U241K11

Test Report

JOYIN COMPANY LIMITED
39-1, SHIU LIU TUNG, TUNG LIU LI, YANGMEI,
TAOYUAN 326, TAIWAN R.O.C.

Report No. : CE/2005/14724A
Date : 2005/02/02
Page : 8 of 10



Test Report

JOYIN COMPANY LIMITED
39-1, SHIU LIU TUNG, TUNG LIU LI, YANGMEI,
TAOYUAN 326, TAIWAN R.O.C.

Report No. : CE/2005/14724A
Date : 2005/02/02
Page : 9 of 10



Test Report

JOYIN COMPANY LIMITED
39-1, SHIU LIU TUNG, TUNG LIU LI, YANGMEI,
TAOYUAN 326, TAIWAN R.O.C.

Report No. : CE/2005/14724A
Date : 2005/02/02
Page : 10 of 10

