

RAKU® TOOL Boards

| | RAKU® TOOL SB-0080 | RAKU® TOOL SB-0140 | RAKU® TOOL SB-0240 | RAKU® TOOL SB-0301 | RAKU® TOOL SB-0351 |
|--|--|---|--|--|--|
| | Styling Boards | | | | |
| Color | off-white | light green | apricot | apricot | apricot |
| Density (ISO 1183) g/cm³ ca. | 0.08 | 0.14 | 0.24 | 0.35 | 0.35 |
| Applications | <ul style="list-style-type: none"> > Design study > Program proving > Supporting structures for Close Contour Pastes > Negative molds for casting | <ul style="list-style-type: none"> > Design study > Program proving > Supporting structures for Close Contour Pastes > Negative molds for casting | <ul style="list-style-type: none"> > Styling models > Epoxy laminating molds > Supporting structures for Close Contour Pastes > Negative molds for casting | <ul style="list-style-type: none"> > Styling & Design models > Molds for laminating parts | <ul style="list-style-type: none"> > Styling & design models > Supporting structures for Close Contour Pastes > Molds for laminating parts |
| Key Properties | <ul style="list-style-type: none"> > Very light weight and smooth surface > Easily shaped and good chip formation > Good heat resistance > Resistant to organic solvents | <ul style="list-style-type: none"> > Light weight and smooth surface > Easily shaped, low dust > Resistant to organic solvents | <ul style="list-style-type: none"> > Good surface structure > Easily shaped and machined > Resistant to organic solvents | <ul style="list-style-type: none"> > Fine surface structure > Easily shaped and machined, low dust | <ul style="list-style-type: none"> > Fine surface structure > Easily shaped and machined, low dust |
| Hardness (ISO 868) Shore D | – | – | – | – | – |
| Coefficient of thermal expansion (ISO 11359) 10⁻⁶ K⁻¹ | – | – | 60 – 70 | 65 – 70 | 45 – 50 |
| Deflection temperature (ISO 75) °C | – | – | 55 – 65 | 55 – 65 | 60 – 70 |
| Compressive strength (ISO 604) MPa | 0.7 | 1.8 – 2 | 2 – 4 | 6 – 8 | 8 – 12 |
| Flexural strength (ISO 178) MPa | – | – | 5 – 6 | 7 – 9 | 8 – 12 |
| Dimensions mm (Length x Width x Height) | 2500 x 1200 x 100 2500 x 1200 x 200 2500 x 1200 x 300 2500 x 1200 x 400 | 2000 x 1000 x 100 2000 x 1000 x 200 2000 x 1000 x 300 2000 x 1000 x 400 | 1500 x 500 x 50 1500 x 500 x 100 1500 x 500 x 200 2000 x 1000 x 50 2000 x 1000 x 100 2000 x 1000 x 200 | 2000 x 1000 x 100 2000 x 1000 x 200 | 1500 x 500 x 50 1500 x 500 x 75 1500 x 500 x 100 1500 x 500 x 150 1500 x 500 x 200 |
| Bonding with RAKU® TOOL | | > EP-2305/EH-2904-1 | > EP-2305/EH-2904-1 | > EP-2305/EH-2904-1 | > EP-2305/EH-2904-1 |
| Mix ratio (pbw) | – | 100 : 30 | 100 : 30 | 100 : 30 | 100 : 30 |
| Color | | apricot | apricot | apricot | apricot |
| Pot life 500 ml (min) | | 25 | 25 | 25 | 25 |
| Minimum curing time (h) | | 16 | 16 | 16 | 16 |
| Repair with RAKU® TOOL | Repair with adhesive bonded inserts | Repair with adhesive bonded inserts | Repair with adhesive bonded inserts | Repair with adhesive bonded inserts | Repair with adhesive bonded inserts |

SB = Styling Board | MB = Modeling Board | WB = Working Board. Special sizes available on request.

| | RAKU® TOOL SB-0470 | RAKU® TOOL MB-0600 | RAKU® TOOL MB-0670 | RAKU® TOOL MB-0720 | RAKU® TOOL WB-0801 |
|--|--|--|--|---|---|
| | Styling Boards | Modeling Boards | | | Working Boards |
| Color | apricot | brown | brown | brown | gray |
| Density (ISO 1183) g/cm³ ca. | 0.47 | 0.60 | 0.67 | 0.72 | 0.80 |
| Applications | > Styling models > Master models and data control models | > Master models, Cubing models, Patterns | > Master models, Cubing models, Patterns | > Master models, Cubing models, Patterns | > Master models > Cubing models > Tooling Jigs and Fixtures > Vacuum forming tools |
| Key Properties | > Very good surface structure > Easily machined | > Fine surface structure > Easily shaped and machined > Low coefficient of thermal expansion > Good dimensional stability | > Fine surface structure > Easily shaped and machined > Low coefficient of thermal expansion > Good dimensional stability | > Excellent surface structure > Low coefficient of thermal expansion > Good dimensional stability > Good compressive and flexural strength | > Fine surface structure > High HDT and very low CTE > Good dimensional stability > Good compressive and flexural strength |
| Hardness (ISO 868) Shore D | – | 50 – 55 | 60 – 65 | 60 – 65 | 65 – 70 |
| Coefficient of thermal expansion (ISO 11359) 10⁻⁶ K⁻¹ | 60 – 65 | 50 – 55 | 50 – 55 | 50 – 55 | 45 – 50 |
| Deflection temperature (ISO 75) °C | 60 – 70 | 70 – 75 | 75 – 80 | 75 – 80 | 85 – 90 |
| Compressive strength (ISO 604) MPa | 10 – 15 | 15 – 20 | 15 – 20 | 20 – 25 | 40 – 45 |
| Flexural strength (ISO 178) MPa | 10 – 15 | 15 – 20 | 20 – 25 | 25 – 30 | 35 – 40 |
| Dimensions mm (Length x Width x Height) | 1500 x 500 x 50 1500 x 500 x 75 1500 x 500 x 100 1500 x 500 x 150 1500 x 500 x 200 | 1500 x 500 x 25 1500 x 500 x 30 1500 x 500 x 50 1500 x 500 x 75 1500 x 500 x 100 1500 x 500 x 150 1500 x 500 x 200 | 1500 x 500 x 25 1500 x 500 x 30 1500 x 500 x 50 1500 x 500 x 75 1500 x 500 x 100 1500 x 500 x 150 1500 x 500 x 200 | 1500 x 500 x 25 1500 x 500 x 30 1500 x 500 x 50 1500 x 500 x 75 1500 x 500 x 100 1500 x 500 x 150 1500 x 500 x 200 | 1500 x 500 x 25 1500 x 500 x 50 1500 x 500 x 75 1500 x 500 x 100 1500 x 500 x 150 |
| Bonding with RAKU® TOOL | > EP-2305/EH-2904-1 | > EP-2306/EH-2904-1 | > EP-2306/EH-2904-1 | > EP-2306/EH-2904-1 | > EP-2306/EH-2904-1 |
| Mix ratio (pbw) | 100 : 30 | 100 : 30 | 100 : 30 | 100 : 30 | 100 : 30 |
| Color | apricot | brown | brown | brown | brown |
| Pot life 500 ml (min) | 25 | 35 | 35 | 35 | 35 |
| Minimum curing time (h) | 16 | 16 | 16 | 16 | 16 |
| Repair with RAKU® TOOL | Repair with adhesive bonded inserts | Repair with adhesive bonded inserts | Repair with adhesive bonded inserts | Repair with adhesive bonded inserts | Repair with adhesive bonded inserts |

SB = Styling Board | MB = Modeling Board | WB = Working Board

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RAKU® TOOL Boards

| | RAKU® TOOL WB-0691 | RAKU® TOOL WB-0700 | RAKU® TOOL WB-1000 | | RAKU® TOOL WB-1222 | | RAKU® TOOL WB-1250 | |
|--|--|---|--|--------------------------|---|--------------------------|---|--------------------------|
| Working Boards | | | | | | | | |
| Color | light blue | light green | beige, also available in gray (WB-1001) | | green | | light green | |
| Density (ISO 1183) g/cm³ ca. | 0.69 | 0.70 | 1.00 | | 1.22 | | 1.25 | |
| Applications | > Lay-up tools for low temperature tooling prepregs > Vacuum forming molds > Medium temperature applications | > Lay-up tools for prepreg > High temperature applications > Vacuum forming molds | > Tooling jigs > Fixtures | | > Foundry pattern plates > Hammer tools > Checking fixtures for metal parts | | > Foundry models > Foundry pattern plates > Foundry core boxes | |
| Key Properties | > Very fine surface structure > Excellent machinability > Good dimensional stability > Heat resistant up to 110°C | > Very fine surface structure > Very easily machined > Temperature resistance up to 135°C > Good dimensional stability | > Very easily machined > Low coefficient of thermal expansion > Good edge strength and abrasion resistance | | > Low wear of milling tools > Resistant to amine > Most proven working board on the foundry market > Resistant to dry ice cleaning > Good abrasion resistance | | > Easy to mill > Low wear of milling tools > Very good amine resistance > Very good abrasion resistance > Resistant to dry ice cleaning | |
| Hardness (ISO 868) Shore D | 70 – 75 | 65 – 70 | 75 – 80 | | 75 – 85 | | 77 – 83 | |
| Coefficient of thermal expansion (ISO 11359) 10⁻⁶ K⁻¹ | 35 – 45 | 35 – 45 | 50 – 60 | | 80 – 85 | | 70 – 75 | |
| Deflection temperature (ISO 75) °C | 100 – 110 | 130 – 140 | 70 – 80 | | 80 – 90 | | 80 – 85 | |
| Compressive strength (ISO 604) MPa | 50 – 60 | 50 – 55 | 45 – 50 | | 60 – 70 | | 70 – 80 | |
| Flexural strength (ISO 178) MPa | 25 – 35 | 30 – 40 | 45 – 50 | | 70 – 80 | | 90 – 100 | |
| Dimensions mm (Length x Width x Height) | 1500 x 500 x 50 1500 x 500 x 75 1500 x 500 x 100 1500 x 500 x 150 1500 x 500 x 200 | 1500 x 500 x 50 1500 x 500 x 75 1500 x 500 x 100 1500 x 500 x 150 1500 x 500 x 200 | 1500 x 500 x 25 1500 x 500 x 50 1500 x 500 x 75 1500 x 500 x 100 | | 1000 x 500 x 30 1000 x 500 x 50 1000 x 500 x 75 1000 x 500 x 100 | | 1000 x 500 x 30 1000 x 500 x 50 1000 x 500 x 75 1000 x 500 x 100 | |
| Bonding with RAKU® TOOL | > EP-2303/EH-2934-1 | > EP-2304/EH-2934-1 | > PP-3310/ PH-3905 | > EL-2210/ EH-2910-1* | > PP-3311/ PH-3905 | > EL-2210/ EH-2910-1* | > PP-3350/ PH-3905 | > EL-2210/ EH-2910-1* |
| Mix ratio (pbw) | 100 : 20 | 100 : 20 | 100 : 50 | 100 : 60 | 100 : 50 | 100 : 60 | 100 : 50 | 100 : 60 |
| Color | light blue | light green | beige | clear | green | clear | light green | clear |
| Pot life 500 ml (min) | 80 – 90 | 90 | 5 – 8 | 60 | 5 – 8 | 60 | 5 – 8 | 60 |
| Minimum curing time (h) | 16 | 16 | 4 | 16 | 4 | 16 | 4 | 16 |
| Repair with RAKU® TOOL | Repair with adhesive bonded inserts | Repair with adhesive bonded inserts | Repair with adhesive bonded inserts | | Repair with adhesive bonded inserts | | Repair with adhesive bonded inserts | |

SB = Styling Board | MB = Modeling Board | WB = Working Board. * Different mix ratios for special mixtures see technical data sheet.

| | RAKU® TOOL WB-1258 | RAKU® TOOL WB-1404 | RAKU® TOOL WB-1460 | RAKU® TOOL WB-1600 | RAKU® TOOL WB-1700 | | | | |
|--|---|---|---|--|---|--------------------------|--|--------------------------|--|
| Working Boards | | | | | | | | | |
| Color | orange | olive | light green | ivory | dark gray | | | | |
| Density (ISO 1183) g/cm³ ca. | 1.20 | 1.40 | 1.46 | 1.60 | 1.70 | | | | |
| Applications | > Pattern plates > Core boxes | > Checking fixtures for metal parts > Models and molds for polyester and composites applications > Hammer tools > Vacuum forming tools > Foundry: models, pattern plates and core boxes > Molds for low pressure RIM | > Foundry models > Foundry pattern plates | > Metal forming tools > Jigs > Fixtures | > Metal forming tools > Vacuum forming molds, jigs > Foam molds > Rapid prototyping molds | | | | |
| Key Properties | > Very high abrasion resistance whilst good dimensional stability and accuracy > Homogeneous surface > High impact strength, good edge strength > Very easily machined > Excellent resistance to chemicals, no swelling | > Good styrene resistance > High compressive modulus > Good amine resistance > Good abrasion resistance > Resistant to dry ice cleaning > Can be polished > Low coefficient of thermal expansion | > Made out of recycle polyol > Resistant to amine > Resistant to dry ice cleaning > Good abrasion resistance | > Dense surface > Easily machined > Low coefficient of thermal expansion > Very good compressive strength | > Very dense surface structure, can be polished > Easily machined > Good temperature resistance > Excellent compressive strength > High abrasion resistance | | | | |
| Hardness (ISO 868) Shore D | 80 – 85 | 85 – 90 | 80 – 85 | 85 – 90 | 85 – 90 | | | | |
| Coefficient of thermal expansion (ISO 11359) 10⁻⁶ K⁻¹ | 70 – 75 | 50 – 55 | 65 – 75 | 45 – 50 | 45 – 50 | | | | |
| Deflection temperature (ISO 75) °C | 70 – 75 (Tg) | 75 – 80 | 75 – 80 | 75 – 80 | 120 – 125 | | | | |
| Compressive strength (ISO 604) MPa | 90 – 100 | 85 – 95 | 70 – 80 | 90 – 100 | 125 – 130 | | | | |
| Flexural strength (ISO 178) MPa | 100 – 110 | 80 – 90 | 70 – 80 | 55 – 65 | 80 – 85 | | | | |
| Dimensions mm (Length x Width x Height) | 1000 x 500 x 30 1000 x 500 x 50 1000 x 500 x 75 1000 x 500 x 100 | 1000 x 500 x 30 1000 x 500 x 50 1000 x 500 x 75 1000 x 500 x 100 | 1000 x 500 x 30 1000 x 500 x 50 1000 x 500 x 75 1000 x 500 x 100 | 750 x 500 x 50 750 x 500 x 75 750 x 500 x 100 | 750 x 500 x 50 750 x 500 x 75 750 x 500 x 100 | | | | |
| Bonding with RAKU® TOOL | > PP-3358/ PH-3905 | > EL-2210/ EH-2910-1* | > PP-3314/ PH-3905 | > EL-2210/ EH-2910-1* | > PP-3311/ PH-3905 | > EL-2210/ EH-2910-1* | > PP-3310/ PH-3905 | > EL-2210/ EH-2910-1* | > EL-2210/EH-2910-1* |
| Mix ratio (pbw) | 100 : 50 | 100 : 60 | 100 : 50 | 100 : 60 | 100 : 50 | 100 : 60 | 100 : 50 | 100 : 60 | 100 : 60 |
| Color | orange | clear | olive | clear | green | clear | beige | clear | clear |
| Pot life 500 ml (min) | 5 – 8 | 60 | 5 – 8 | 60 | 5 – 8 | 60 | 5 – 8 | 60 | 60 |
| Minimum curing time (h) | 4 | 16 | 4 | 16 | 4 | 16 | 4 | 16 | 16 |
| Repair with RAKU® TOOL | Repair with adhesive bonded inserts | | Repair with adhesive bonded inserts | | Repair with adhesive bonded inserts | | Repair with adhesive bonded inserts | | Repair with adhesive bonded inserts |
| SB = Styling Board MB = Modeling Board WB = Working Board. * Different mix ratios for special mixtures see technical data sheet. | | | | | | | | | |