

```
1 {
2   "version": "0.2",
3   "cross section": [[0, 0], [100, 0]],
4   "features":
5   [
6     // defining an oceanic plate on the left side of the model
7     {
8       "model": "oceanic plate", "name": "oceanic plate", "max depth": 95e3,
9       "coordinates": [[-1e3, -1e3], [1000e3, -1e3], [1000e3, 1e3], [-1e3, 1e3]],
10      "temperature models":
11      [
12        {
13          "model": "plate model", "max depth": 95e3, "bottom temperature": 1600,
14          "spreading velocity": 0.01,
15          "ridge coordinates": [[100e3, -1e3], [0e3, 1e3]]
16        }
17      ],
18      "composition models":
19      [
20        {"model": "uniform", "compositions": [0], "max depth": 10e3}
21      ]
22    },
23    // defining a weakzone oceanic plate at the first 100 km
24    {
25      "model": "oceanic plate", "name": "weak zone left", "max depth": 95e3,
26      "coordinates": [[-1e3, -1e3], [100e3, -1e3], [100e3, 1e3], [-1e3, 1e3]],
27      "temperature models":
28      [
29        {
30          "model": "linear", "max depth": 95e3, "bottom temperature": 1600,
31          "top temperature": 1573
32        }
33      ]
34    },
35    // defining a continental plate at the right side of the model
36    {
37      "model": "continental plate", "name": "continental plate", "max depth": 95e3,
38      "coordinates": [[1000e3, -1e3], [2001e3, -1e3], [2001e3, 1e3], [1000e3, 1e3]],
39      "temperature models":
40      [
41        {"model": "linear", "max depth": 95e3, "bottom temperature": 1600}
42      ]
43    },
44    // defining an oceanic plate as weakzone at the rightmost side of the model
45    {
46      "model": "oceanic plate", "name": "weak zone right", "max depth": 95e3,
47      "coordinates": [[1900e3, -1e3], [2000e3, -1e3], [2000e3, 1e3], [1900e3, 1e3]],
48      "temperature models":
49      [
50        {
51          "model": "linear", "max depth": 95e3, "bottom temperature": 1600,
52          "top temperature": 1573
53        }
54      ]
55    },
56    // defining the upper mantle
57    {
58      "model": "mantle layer", "name": "upper mantle",
59      "min depth": 95e3, "max depth": 660e3,
60      "coordinates": [[-1e3, -1e3], [2001e3, -1e3], [2001e3, 1e3], [-1e3, 1e3]],
61      "temperature models":
62      [
63        {"model": "linear", "max depth": 660e3,
64         "top temperature": 1600, "bottom temperature": 1820}
65      ]
66    },
67    // defining the lower mantle
68    {
69      "model": "mantle layer", "name": "lower mantle",
70      "min depth": 660e3, "max depth": 1160e3,
71      "coordinates": [[-1e3, -1e3], [2001e3, -1e3], [2001e3, 1e3], [-1e3, 1e3]],
72      "temperature models":
73      [
74        {"model": "linear", "max depth": 1160e3,
75         "top temperature": 1820, "bottom temperature": 2000}
76      ]
77    },
78    // defining the subducting plate
79    {
80      "model": "subducting plate", "name": "Subducting plate",
81      "coordinates": [[1000e3, -1e3], [1000e3, 1e3]], "dip point": [2000e3, 0],
82      "segments":
83      [
84        {"length": 200e3, "thickness": [95e3], "angle": [0, 45]},
85        {"length": 200e3, "thickness": [95e3], "angle": [45]}
86      ],
87      "temperature models":
88      [
89        {"model": "plate model", "density": 3300, "plate velocity": 0.01 }
90      ],
91      "composition models":
92      [
93        {"model": "uniform", "compositions": [0], "max distance slab top": 10e3}
94      ]
95    },
96    // defining a continental plate on top of the slab to force 293.15 K at
97    // the surface near the slab
98    {
99      "model": "continental plate", "name": "top on slab", "max depth": 1,
100     "coordinates": [[900e3, -1e3], [1100e3, -1e3], [1100e3, 1e3], [900e3, 1e3]],
101     "temperature models": [{"model": "uniform", "temperature": 293.15}]
102   }
103 ]
104 }
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