

```
1 {
2   "version": "0.2",
3   "potential_mantle_temperature": 1500,
4   "thermal_expansion_coefficient": 2.0e-5,
5   "maximum_distance_between_coordinates": 100000,
6   "interpolation": "monotone_spline",
7   "surface_temperature": 293.15,
8   "force_surface_temperature": true,
9   "coordinate_system": {"model": "cartesian"},
10  "features":
11  [
12    // defining an oceanic plate for the North and South American plate
13    {"model": "oceanic_plate", "name": "NS American plate",
14     "coordinates": [[1700e3, 0], [1700e3, 300e3], [1606e3, 650e3],
15                   [1350e3, 906e3], [1000e3, 1000e3], [-1e3, 1000e3],
16                   [-1e3, 1501e3], [2501e3, 1501e3], [2501e3, -501e3],
17                   [-1e3, -501e3], [-1e3, -50e3], [2000e3, -50e3],
18                   [2000e3, 0e3]],
19     "temperature_models": [{"model": "linear", "max_depth": 100e3}],
20     "composition_models": [{"model": "uniform", "compositions": [0],
21                            "max_depth": 30e3}],
22
23    // Defining an oceanic plate for the Caribbean plate
24    {"model": "oceanic_plate", "name": "Caribbean plate",
25     "coordinates": [[1700e3, 300e3], [1689e3, 422e3], [1658e3, 539e3],
26                   [1606e3, 650e3], [1536e3, 749e3], [1450e3, 836e3],
27                   [1350e3, 906e3], [1239e3, 958e3], [1122e3, 989e3],
28                   [1000e3, 1000e3], [650e3, 1000e3], [-1e3, 1000e3],
29                   [-1e3, 0e3], [1700e3, 0e3]],
30     "temperature_models": [{"model": "linear", "max_depth": 100e3}],
31     "composition_models": [{"model": "uniform", "compositions": [1],
32                            "max_depth": 30e3}],
33
34    // Defining a continental plate for the weak zone
35    {"model": "continental_plate", "name": "Caribbean weak zone",
36     "coordinates": [[-1e3, 1000e3], [-1e3, 750e3], [1536e3, 749e3],
37                   [1450e3, 836e3], [1350e3, 906e3], [1239e3, 958e3],
38                   [1122e3, 989e3], [1000e3, 1000e3], [650e3, 1000e3]],
39     "temperature_models": [{"model": "linear", "max_depth": 100e3}],
40     "composition_models": [{"model": "uniform", "compositions": [2],
41                            "max_depth": 30e3},
42                            {"model": "uniform", "compositions": [3],
43                             "min_depth": 30e3}],
44
45    // Defining a mantle layer for the lower mantle
46    {"model": "mantle_layer", "name": "660", "min_depth": 660e3,
47     "coordinates": [[-1e3, -500e3], [-501e3, 2500e3], [2501e3, 2500e3],
48                   [2501e3, -501e3]],
49     "composition_models": [{"model": "uniform", "compositions": [4]}],
50
51    // Defining a subducting plate for the Lesser Antilles slab
52    {"model": "subducting_plate", "name": "Lesser Antilles slab",
53     "coordinates": [[1700e3, 0], [1700e3, 300e3], [1606e3, 650e3],
54                   [1350e3, 906e3], [1000e3, 1000e3], [650e3, 1000e3]],
55     "dip_point": [-1, -1],
56     "min_depth": 0, "max_depth": 660e3,
57     "segments":
58     [
59       {"length": 300e3, "thickness": [100e3], "angle": [0, 50]},
60       {"length": 371e3, "thickness": [100e3], "angle": [50]},
61       {"length": 275e3, "thickness": [100e3], "angle": [50, 0]},
62       {"length": 0e3, "thickness": [100e3], "angle": [0]}
63     ],
64     "sections":
65     [
66       {"coordinate": "0",
67        "segments":
68        [
69          {"length": 300e3, "thickness": [100e3], "angle": [0, 25]},
70          {"length": 371e3, "thickness": [100e3], "angle": [50]},
71          {"length": 300e3, "thickness": [100e3], "angle": [50, 0]},
72          {"length": 50, "thickness": [100e3], "angle": [0]}
73        ]
74       },
75       {"coordinate": "5",
76        "segments":
77        [
78          {"length": 300e3, "thickness": [100e3], "angle": [0, 25]},
79          {"length": 371e3, "thickness": [100e3], "angle": [50]},
80          {"length": 50e3, "thickness": [100e3], "angle": [50, 0]},
81          {"length": 0, "thickness": [100e3], "angle": [0]}
82        ]
83       }
84     ],
85     "temperature_models":
86     [
87       {"model": "plate_model", "density": 3300, "plate_velocity": 0.0144,
88        "thermal_conductivity": 2.5, "thermal_expansion_coefficient": 2e-5 }
89     ],
90     "composition_models":
91     [
92       {"model": "uniform", "compositions": [0], "min_distance_slab_top": 30e3}
93     ]
94  ],
95
96  // Defining a continental plate for the weakzone between the Caribbean and
97  // South America
98  {"model": "continental_plate", "name": "South Weakzone",
99   "coordinates": [[-1e3, 0e3], [-1e3, -50e3], [2000e3, -50e3], [2000e3, 0e3]],
100  "temperature_models": [{"model": "linear", "max_depth": 100e3}],
101  "composition_models":
102  [
103    {"model": "uniform", "compositions": [2], "max_depth": 30e3},
104    {"model": "uniform", "compositions": [3], "min_depth": 30e3}]
105  ]
106  }
107 }
```