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Supporting Information 2 for

**In-situ  $V_p/V_s$  ratio reveals fault-zone material variation at the westernmost Gofar transform fault, East Pacific Rise**

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- Table S1 and 2

**Introduction**

This supplementary information contains Supplementary Table 1 and 2.

Fault patch	$V_p/V_s$ ratio	Uncertainty	RMS misft (s)
T	1.693	0.013	0.006
M1	1.681	0.008	0.005
M2	1.607	0.010	0.006
F1	1.752	0.008	0.005
F2	1.795	0.012	0.006
D1	1.799	0.006	0.005
D2	1.780	0.005	0.005
E	1.767	0.006	0.005

**Table S1.** In-situ  $V_p/V_s$  ratios, uncertainties, and the RMS misfits of all our fault patches except for S1 and S2.

	Bulk modulus $\kappa$ (GPa)	Shear modulus $\mu$ (GPa)	Density $\rho$ (g cm <sup>-3</sup> )
Diabase	88.9	45.6	2.99
Harzburgite	115.6	70.0	3.26
Water	1.33	0	0.51

**Table S2.** Physical properties of rock matrices and water at 600 °C and 150 MPa in our models.