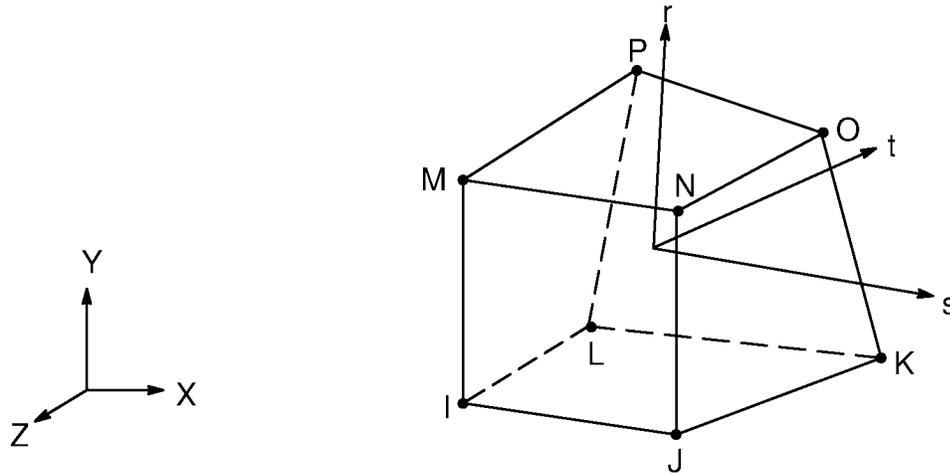


14.69 SOLID69 — 3-D Coupled Thermal–Electric Solid



Matrix or Vector	Shape Functions	Integration Points
Conductivity Matrix	Equations (12.8.18–20) and (12.8.18–21)	2 x 2 x 2
Specific Heat Matrix	Equation (12.8.18–20). Matrix is diagonalized as described in Section 13.2	2 x 2 x 2
Heat Generation Load Vector	Equation (12.8.18–20)	2 x 2 x 2
Convection Surface Matrix and Load Vector	Equation (12.8.18–20), specialized to the face	None

Reference: Kohnke and Swanson(19)

14.69.1 Other Applicable Sections

Section 11.2 discusses thermal–electric elements. Section 13.1 describes integration point locations.