



b

TPMS function	Geometry	Property	
$f_G(x, y, z) = \cos(2\pi y)\sin(2\pi x) + \cos(2\pi x)\sin(2\pi z) + \cos(2\pi z)\sin(2\pi y) + t_1 = 0, t_1 = 0.$		100 100 100 100 100 100 100 100 100 100	
$f_D(x, y, z) = \cos(2\pi x)\cos(2\pi y)\cos(2\pi z) -\sin(2\pi x)\sin(2\pi y)\sin(2\pi z) +t_2 = 0, t_2 = 0.$		100 200 200 200 200 200 200 200 200 200	
$f_{Hybrid}(x,y,z) = \alpha_1 f_G(x,y,z) + \alpha_2 f_D(x,y,z),$ where $\mathbf{t}_1 \in [-0.5,0.5], t_2 \in [-0.5,0.5], \alpha_1 \in [0,1], \alpha_2 \in [0,1]$			

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$\begin{aligned} \mathbf{t}_1 &= -0.2037, t_2 = 0.2447, \\ \alpha_1 &= 0.5470, \alpha_2 = 0.4530 \end{aligned}$		10 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	
$t_1 = 0.1555, t_2 = -0.3288,$ $\alpha_1 = 0.3922, \alpha_2 = 0.6078$		200 TOTAL OF THE PARTY OF THE P	
$t_1 = 0.3407, t_2 = -0.2457,$ $\alpha_1 = 0.2575, \alpha_2 = 0.7425$		To the second se	