

From **Penetration Depths** at <https://www.pueschner.com/en/microwave-technology/penetration-depths>

Table 1. Penetration depths of microwave energy of various materials at 2450MHz

Penetration Depths

Table 1 shows the penetration depth values of various materials. It should be noted that the penetration depth of the electric field strength is sometimes reported in the literature, with a value which is twice as high.

Material	Temperature in °C	Penetration depth in cm
water	45	1,4
water	95	5,7
ice	-12	1100
bread	25	2 ... 5
potato, raw	25	0,9
mashed potato	25	0,8
peas, carrots	25	1
meat	25	0,9 ... 1,2
paper, cardboard	25	20 ... 60
wood	25	8 ... 350
caotchouc	25	15 ... 350
hollow glass	25	35
porcelain	25	56
polyvinylchloride ²⁰	20	210
epoxy resin (Araldite CN-501)	25	4100
teflon	25	9200
quartz glass	25	16000