

## Material Composition for EN12-HS22F20

Sub-component	Material	% of Total Mass	Substance Name	CAS #	Substance Mass (grams)	Special Classification
Shaft	PC	22.920%	Polycarbonate	25971-63-5	0.5730	
Shaft base	PC	6.880%	Polycarbonate	25971-63-5	0.1720	
Switch base	PBT blend	12.600%	PBT polymer	30965-26-5	0.1103	Halogenated epoxy, contains BPA Antimony fire retardant
			Brominated epoxy resin	68928-70-1	0.0788	
			Antimony oxide	1309-64-4	0.0315	
			Glass fiber	65997-17-3	0.0945	
Frame	Steel	34.120%	C	231-153-3	0.0017	
			Mn	231-105-1	0.0017	
			P	231-768-7	3.41E-04	
			S	231-722-6	3.41E-04	
			Si	231-130-8	0.0026	
			Al	231-072-3	3.75E-04	
			Fe	231-096-4	0.8460	
Spring plate	POM	1.130%	Acetal polymer	unknown	0.0277	
			Stabilizer	unknown	5.65E-04	
Switch base	Brass	0.957%	Cu	7440-50-8	0.0220	
	Ag plating	0.120%	Zn	7440-66-6	0.0019	
Slider	Phosphor bronze	1.040%	Ag	506-64-9	0.0030	RoHS exemption 6(c)
			Cu	7440-50-8	0.0238	
			Sn	7440-31-5	0.0021	
			Zn	7440-66-6	5.20E-05	
			Pb	7439-92-1	3.00E-06	
			Fe	7439-89-6	1.00E-05	
	P	7723-14-0	1.30E-05			
Ag plating	0.0001%	Ag	506-64-9	3.00E-06		
Click	Phosphor bronze	4.980%	Cu	7440-50-8	0.1141	
			Sn	7440-31-5	0.0100	
			Zn	7440-66-6	2.49E-04	
			Pb	7439-92-1	1.20E-05	
			Fe	7439-89-6	5.00E-05	
			P	7723-14-0	6.20E-05	
Switch spring plate	Copper alloy	2.720%	Cu	7440-50-8	0.0021	
	Ag plating	0.012%	Ti	7440-32-6	0.0659	
			Ag	506-64-9	3.00E-04	
Slider base	PBT blend	11.200%	PBT polymer	30965-26-5	0.0980	Halogenated epoxy, contains BPA Antimony fire retardant
			Brominated epoxy resin	68928-70-1	0.07	
			Antimony oxide	1309-64-4	0.028	
			Glass fiber	65997-17-3	0.0840	
Conductor	Phosphor bronze	1.000%	Cu	7440-50-8	0.0229	RoHS exemption 6(c)
			Sn	7440-31-5	0.0020	
			Zn	7440-66-6	5.00E-05	
			Pb	7439-92-1	3.00E-06	
			Fe	7439-89-6	1.00E-05	
			P	7723-14-0	1.30E-05	
	Ag plating	0.120%	Ag	506-64-9	0.0030	
Electric conduction oil	PAO lubricant	0.120%	Polyisobutylene	9003-27-4	5.40E-04	
			PAO	68037-01-4	0.0024	
			Fumed silica	68611-44-9	6.00E-05	
Axes oil	PAO lubricant	0.080%	Polyisobutylene	9003-27-4	0.0012	
			PAO	68037-01-4	7.00E-04	
			Fumed silica	68611-44-9	1.00E-04	
<b>Total mass</b>					<b>2.4968</b>	<b>grams</b>