

charakteristika a aplikační využití tenkovrstvých materiálů

typ	aplikační použití	C_T [W/m-K]	barva	ΔL [%]
SARCON folie				
TR	všeobecné použití, fólie a tvarované výlisky	1.20	zelená	100
HR	vysoká tepelná vodivost	1.70	hnědá	60
GTR	všeobecné použití, výztuha skelnými vlákny 50 μ m	0.90	zelená	< 2
GHR	vysoká tepelná vodivost, výztuha skelnými vlákny 50 μ m	1.40	hnědá	< 2
GSR	nejvyšší tepelná vodivost, výztuha skelnými vlákny 50 μ m	2.90	bílá	< 3
UR	velmi vysoká tepelná vodivost	2.60	šedá	110
QR	měkký materiál s velkou tepelnou vodivostí	1.10	černá	250



C_T [W/m-K] tepelná vodivost
 ΔL [%] poměrné prodloužení

závislost tepelného odporu R_{th} na měrném tlaku

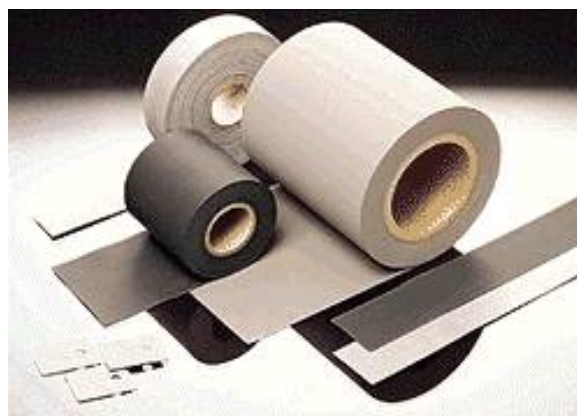
typ	tloušťka	utahovací moment (šroub M3)				
		2kg/cm	3kg/cm	5kg/cm	7kg/cm	10kg/cm
TR	30T	1.55	0.83	0.59	0.47	0.40
	45T	1.88	1.30	0.93	0.74	0.63
	85T	2.99	2.75	2.67	2.12	1.80
HR	30H	1.03	0.75	0.53	0.42	0.36
	45H	1.26	1.10	0.85	0.67	0.57
	85H	1.96	1.80	1.65	1.59	1.54
UR	30U	---	0.30	0.26	0.25	---
	45U	---	0.38	0.35	0.33	---
	85U	---	0.62	0.56	0.52	---
QR	30Q	---	0.61	0.57	0.52	---
	45Q	---	0.83	0.77	0.71	---
	85Q	---	1.42	1.25	1.18	---

typ	tloušťka	utahovací moment (šroub M3)				
		2kg/cm	3kg/cm	5kg/cm	7kg/cm	10kg/cm
GTR	15GTR	0.90	0.85	0.61	0.49	0.42
	20GTR	1.17	0.92	0.66	0.52	0.45
	30GTR	1.62	1.51	1.22	0.97	0.84
GHR	15GHR	0.57	0.53	0.46	0.39	0.34
	20GHR	0.65	0.60	0.56	0.47	0.40
	30GHR	1.12	0.82	0.77	0.72	0.68
GSR	20GSR	---	0.31	0.30	0.30	---
	30GSR	---	0.37	0.34	0.33	---
	45GSR	---	0.40	0.39	0.37	---
	85GSR	---	0.52	0.51	0.50	---

použité zkratky:

C_T [W/m 2 C] tepelná vodivost
 ΔL [%] poměrné prodloužení
 tl [mm] tloušťka
 U_z [kV/min] zkušební napětí
 R_{th} [°C/W] tepelný odpor (inch 2 = 645,16mm 2)

ϵ 1kHz dielektrická konstanta
 m [g/cm 3] měrná hmotnost
 σ_D [kN/m] pevnost v dotržení
 H --- tvrdost (typ A) (ASTM D2240)
 σ_T [kN/m] pevnost v tahu
 AD --- adhesivní provedení

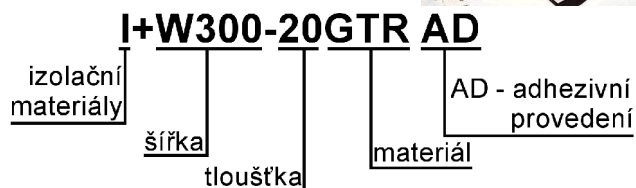
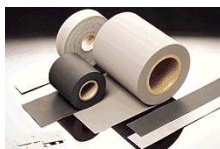
**technické parametry tenkovrstvých materiálů SARCON**

materiál pojiva - silikon výztuž - skelné vlákno
 $R_i = 1 \times 10^7$ [M Ω -m] izolační odpor rozsah pracovních teplot [°C] -60+180°C

typ	barva	tl [mm]	výztuž	R_{th} [°C/W] (inch 2)	m [g/cm 3]	H (typ A)	σ_T [kN/m]	ΔL [%]	σ_D [kN/m]	U_z [kV/min]	ϵ 1kHz	AD
30T	zelená	0.30	ne	0.62	2.29	75	1.7	100	0.3	7	4.4	-
45T	zelená	0.45	ne	0.73	2.29	75	2.3	100	0.4	8	4.5	-
85T	zelená	0.85	ne	1.35	2.29	75	4.2	100	0.8	10	4.9	-
30H	hnědá	0.30	ne	0.42	2.44	85	1.7	60	0.2	6	4.9	-
45H	hnědá	0.45	ne	0.52	2.44	85	2.3	60	0.3	7	4.5	-
85H	hnědá	0.85	ne	0.76	2.44	85	4.2	60	0.6	10	5.7	-
30U	šedá	0.30	ne	0.26	2.57	79	0.9	110	0.3	6	4.3	-
45U	šedá	0.45	ne	0.35	2.57	79	1.2	110	0.4	8	4.6	-
85U	šedá	0.85	ne	0.56	2.57	79	2.2	110	0.7	11	5.3	-
30Q	černá	0.30	ne	0.57	2.20	55	0.8	250	0.5	7	4.1	-
45Q	černá	0.45	ne	0.77	2.20	55	1.0	250	0.6	8	4.2	-
85Q	černá	0.85	ne	1.25	2.20	55	2.0	250	1.1	11	4.9	-
15GTR	zelená	0.15	ano	0.51	2.18	87	11	<2	-	4	2.5	AD
20GTR	zelená	0.20	ano	0.56	2.18	87	11	<2	-	6	3.2	AD
30GTR	zelená	0.30	ano	0.66	2.18	92	11	<2	-	7	3.5	AD
15GHR	hnědá	0.15	ano	0.55	2.36	92	8	<2	-	2	3.0	AD
20GHR	hnědá	0.20	ano	0.57	2.36	92	8	<2	-	4	3.3	AD
30GHR	hnědá	0.30	ano	0.61	2.36	95	8	<2	-	8	3.9	AD
20GSR	bílá	0.20	ano	0.30	1.69	85	14	<3	-	3	2.6	AD
30GSR	bílá	0.30	ano	0.34	1.69	85	15	<3	-	5	3.0	AD
45GSR	bílá	0.45	ano	0.39	1.69	85	18	<3	-	7	3.2	AD
85GSR	bílá	0.85	ano	0.51	1.69	85	15	<3	-	10	3.7	AD

SARCON – tenkovrstvé pásy**SARCON folie - pásy**

příklad objednávky:

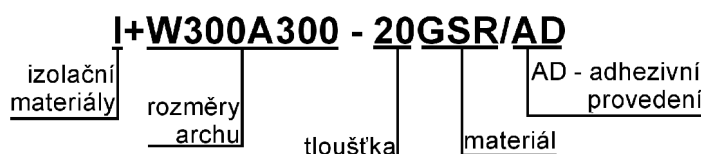


materiál	rozměry			
	tloušťka [mm]			šířka [mm]
T	0.30	0.45	0.85	30/36/48/85/150
H	0.30	0.45	0.85	36/48/85
GTR	0.15	0.20	0.30	10 ÷ 475
GHR	0.15	0.20	0.30	10 ÷ 475
U	0.30	0.45	0.85	36/48/85/150
Q	0.30	0.45	0.85	36/48/85/150
GTR-AD	0.15	0.20	0.30	10 ÷ 450
GHR-AD	0.15	0.20	0.30	10 ÷ 450

ibovlnná, pokud je zboží skladem, jinak dle poptávky

SARCON folie - archy

příklad objednávky:



materiál	tloušťka [mm]				rozměry [mm]
	GSR	0.20	0.30	0.45	0.85
GSR-AD	0.20	0.30	0.45	0.85	300 x 300
NR-a	0.30	0.50	1.00	2.00	120 x 120

SARCON – tenkovrstvé pásy**SARCON GHR PRODUCT PROPERTIES**

Properties	Unit	SARCON GHR 15GHR	SARCON GHR 20GHR	SARCON GHR 30GHR
Color		Brown	Brown	Brown
Thickness	mm	0.15 ^{±0.02} /0.04	0.20 ^{±0.02} /0.04	0.30 ^{±0.06} /-0
Material	Binder	Silicone	Silicone	Silicone
Material	Filler	Alumina +ALN	Alumina +ALN	Alumina +ALN
Material	Reinforcement	Fiberglass	Fiberglass	Fiberglass
Thermal Resistance	°Cin ₁ /W	0.55	0.57	0.61
Thermal Resistance w/PSA	°Cin ₁ /W	0.63	0.66	0.72
Specific Gravity	g/cm ³	2.36	2.36	2.38
Hardness	ASTM D2240	92	92	95
Tensile Strength	kN/m	8	8	8
Elongation	%	2	2	2
Tear Strength	Kg	---	---	---
Volume Resistivity	MOhms-M	1.0x10 ⁷	1.0x10 ⁷	1.0x10 ⁷
Withstand Voltage	kV/minute	2	4	8
Dielectric Constant	1KHz	3.0	3.3	3.9
Maximum Use Temperature	°C	-60°C to +180°C	-60°C to +180°C	-60°C to +180°C
Adhesive Coating		Available	Available	Available

SARCON GSR PRODUCT PROPERTIES

Properties	Unit	SARCON GSR 20GSR	SARCON GSR 30GSR	SARCON GSR 45GSR	SARCON GSR 85GSR
Color		White	White	White	White
Thickness	mm	0.20±0.05	0.30 ^{±0.1} /-0	0.45±0.05	0.85±0.05
Material	Binder	Silicone	Silicone	Silicone	Silicone
Material	Filler	Boron Nitride	Boron Nitride	Boron Nitride	Boron Nitride
Material	Reinforcement	Fiberglass	Fiberglass	Fiberglass	Fiberglass
Thermal Resistance	°Cin ₁ /W	0.30	0.34	0.39	0.51
Thermal Resistance w/PSA	°Cin ₁ /W	0.64	0.66	0.71	0.83
Specific Gravity	g/cm ³	1.71	1.69	1.68	1.68
Hardness	ASTM D2240	85	85	85	85
Tensile Strength	KN/m	14	15	18	15
Elongation	%	2	2	2	2
Tear Strength	KN/m	---	---	---	---
Volume Resistivity	MOhms/m	1.0x10 ⁷	1.0x10 ⁷	1.0x10 ⁷	1.0x10 ⁷
Withstand Voltage	kV/minute	3	5	7	10
Dielectric Constant	1KHz	2.6	2.97	3.22	3.67
Maximum Use Temperature	°C	-60°C to +180°C	-60°C to +180°C	-60°C to +180°C	-60°C to +180°C
Adhesive Coating		Available	Available	Available	Available

SARCON GTR PRODUCT PROPERTIES

Properties	Unit	SARCON GTR 15GTR	SARCON GTR 20GTR	SARCON GTR 30GTR
Color		Green	Green	Green
Thickness	mm	0.15 ^{±0.02} /0.04	0.20 ^{±0.02} /0.04	0.30 ^{±0.06} /-0
Material	Binder	Silicone	Silicone	Silicone
Material	Filler	Alumina	Alumina	Alumina
Material	Reinforcement	Fiberglass	Fiberglass	Fiberglass
Thermal Resistance	°Cin ₁ /W	0.51	0.56	0.66
Thermal Resistance w/PSA	°Cin ₁ /W	0.78	0.83	0.93
Specific Gravity	g/cm ³	2.18	2.18	2.18
Hardness	ASTM D2240	87	87	92
Tensile Strength	kN/m	11	11	11
Elongation	%	2	2	2
Tear Strength	Kg	---	---	---
Volume Resistivity	MOhms/m	1.0x10 ⁷	1.0x10 ⁷	1.0x10 ⁷
Withstand Voltage	kV/minute	4	6	7
Dielectric Constant	1KHz	2.5	3.2	3.5
Maximum Use Temperature	°C	-60°C to +180°C	-60°C to +180°C	-60°C to +180°C
Adhesive Coating		Available	Available	Available

SARCON – tenkovrstvé pásy**SARCON HR PRODUCT PROPERTIES**

Properties	Unit	SARCON HR 30H	SARCON HR 45H	SARCON HR 85H
Color		Brown	Brown	Brown
Thickness	mm	0.30 ^{±0.1} -0	0.45±0.05	0.85±0.05
Material	Binder	Silicone	Silicone	Silicone
Material	Filler	Alumina + ALN	Alumina + ALN	Alumina + ALN
Material	Reinforcement	n/a	n/a	n/a
Thermal Resistance	°Cin_/W	0.42	0.52	0.76
Thermal Resistance w/PSA	°Cin_/W	n/a	n/a	n/a
Specific Gravity	g/cm ³	2.44	2.44	2.44
Hardness	ASTM D2240	85	85	85
Tensile Strength	kN/m	1.7	2.3	4.2
Elongation	%	60	60	60
Tear Strength	kN/m	0.3	0.4	0.8
Volume Resistivity	MOhms/m	2.8x10 ⁷	1.8x10 ⁷	1.0x10 ⁷
Withstand Voltage	kV/minute	8	10	14
Dielectric Constant	1KHz	4.9	4.5	5.7
Maximum Use Temperature	°C	-60°C to +180°C	-60°C to +180°C	-60°C to +180°C
Adhesive Coating		n/a	n/a	n/a

SARCON QR PRODUCT PROPERTIES

Properties	Unit	SARCON QR 30Q	SARCON QR 45Q	SARCON QR 85Q
Color		Black	Black	Black
Thickness	mm	0.30 ^{±0.1} -0	0.45±0.05	0.85±0.05
Material	Binder	Silicone	Silicone	Silicone
Material	Filler	Alumina	Alumina	Alumina
Material	Reinforcement	n/a	n/a	n/a
Thermal Resistance	°Cin_/W	0.57	0.77	1.25
Thermal Resistance w/PSA	°Cin_/W	n/a	n/a	n/a
Specific Gravity	g/cm ³	2.20	2.20	2.20
Hardness	ASTM D2240	55	55	55
Tensile Strength	kN/m	0.8	1.0	2.0
Elongation	%	250	250	250
Tear Strength	kN/m	0.5	0.6	1.1
Volume Resistivity	MOhms/m	5.6x10 ⁷	4.1x10 ⁷	4.6x10 ⁷
Withstand Voltage	kV/minute	9	12	16
Dielectric Constant	1KHz	4.6	4.6	4.6
Maximum Use Temperature	°C	-60°C to +180°C	-60°C to +180°C	-60°C to +180°C
Adhesive Coating		n/a	n/a	n/a

SARCON TR PRODUCT PROPERTIES

Properties	Unit	SARCON TR 30T	SARCON TR 45T	SARCON TR 85T
Color		Green	Green	Green
Thickness	mm	0.30 ^{±0.1} -0	0.45±0.05	0.85±0.05
Material	Binder	Silicone	Silicone	Silicone
Material	Filler	Alumina	Alumina	Alumina
Material	Reinforcement	n/a	n/a	n/a
Thermal Resistance	°Cin_/W	0.62	0.73	1.35
Thermal Resistance w/PSA	°Cin_/W	n/a	n/a	n/a
Specific Gravity	g/cm ³	2.29	2.29	2.29
Hardness	ASTM D2240	75	75	75
Tensile Strength	kN/m	1.7	2.3	4.2
Elongation	%	100	100	100
Tear Strength	kN/m	0.3	0.4	0.8
Volume Resistivity	Ohms - cm	2.9x10 ¹⁵	2.1x10 ¹⁵	6.7x10 ¹⁵
Withstand Voltage	kV/minute	7	8	10
Dielectric Constant	1KHz	4.4	4.5	4.9
Maximum Use Temperature	°C	-60°C to +180°C	-60°C to +180°C	-60°C to +180°C
Adhesive Coating		n/a	n/a	n/a

SARCON – tenkovrstvé pásy**SARCON UR PRODUCT PROPERTIES**

Properties	Unit	SARCON UR 30U	SARCON UR 45U	SARCON UR 85U
Color		Gray	Gray	Gray
Thickness	mm	0.30 ^{±0.1} / ₋₀	0.45±0.05	0.85±0.05
Material	Binder	Silicone	Silicone	Silicone
Material	Filler	Alumina	Alumina	Alumina
Material	Reinforcement	n/a	n/a	n/a
Thermal Resistance	°Cin ₁ /W	0.26	0.35	0.56
Thermal Resistance w/PSA	°Cin ₁ /W	n/a	n/a	n/a
Specific Gravity	g/cm ³	2.57	2.57	2.57
Hardness	ASTM D2240	79	79	79
Tensile Strength	kN/m	0.9	1.2	2.2
Elongation	%	110	110	110
Tear Strength	kN/m	0.3	0.4	0.7
Volume Resistivity	Ohms - cm	9.5x10 ¹⁴	7.7x10 ¹⁴	7.7x10 ¹⁴
Withstand Voltage	kV/minute	11	12	16
Dielectric Constant	1KHz	5.3	5.3	5.3
Maximum Use Temperature	°C	-60°C to +180°C	-60°C to +180°C	-60°C to +180°C
Adhesive Coating		n/a	n/a	n/a