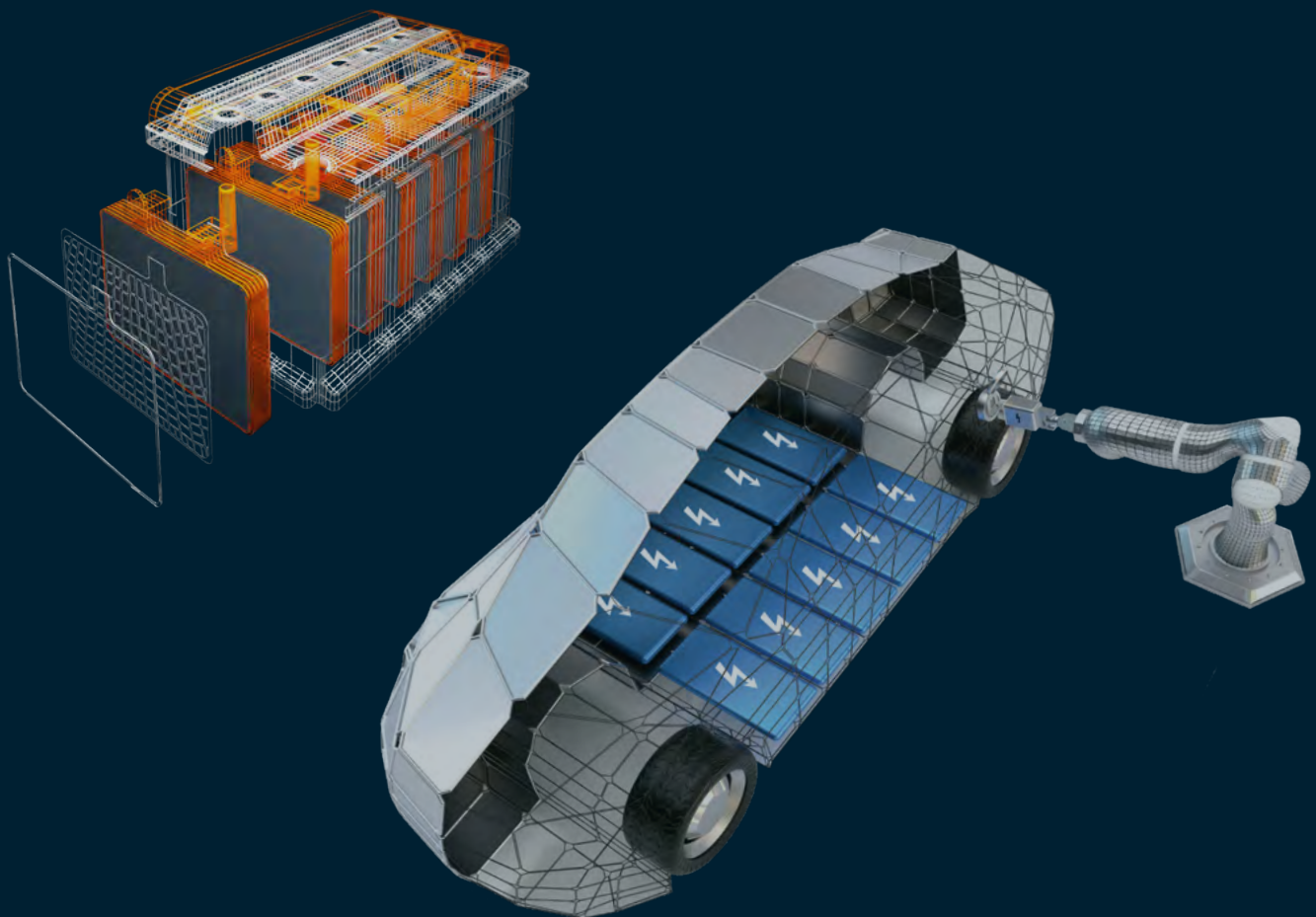


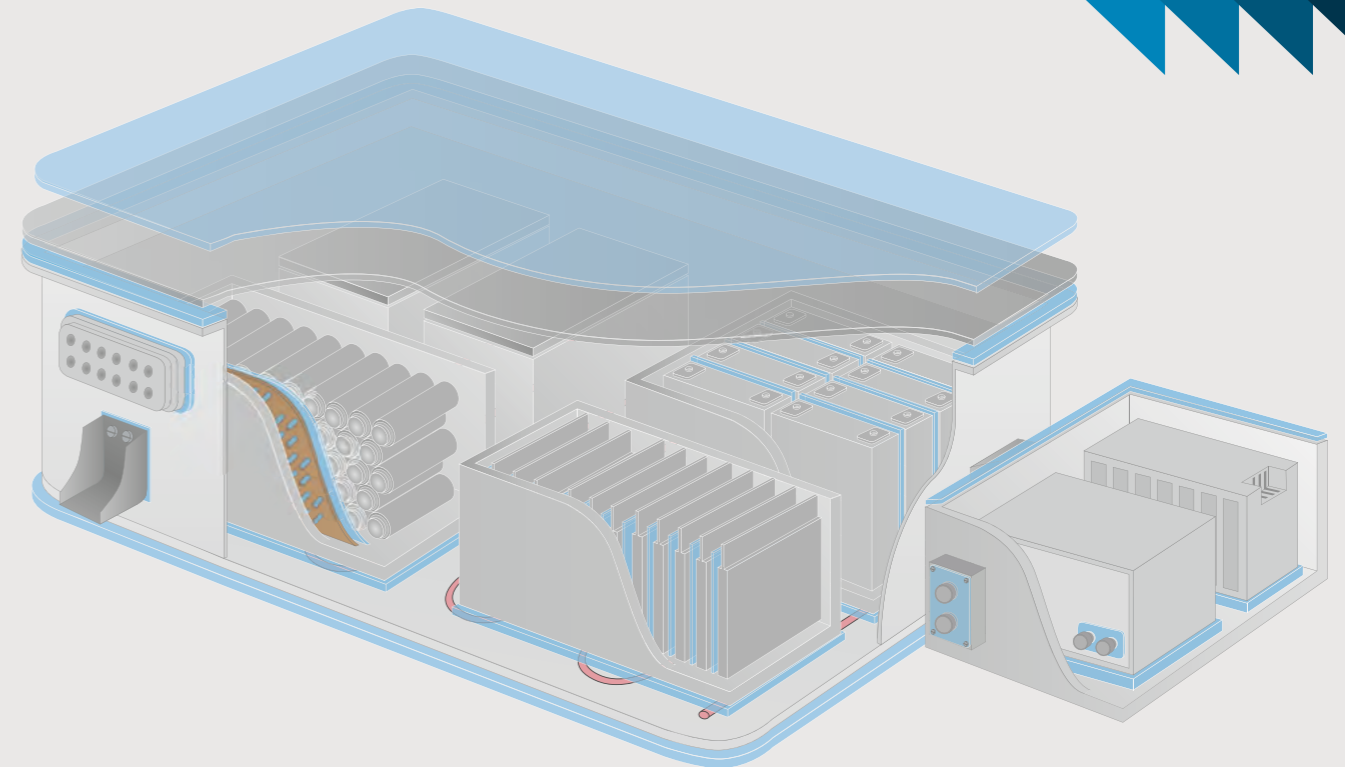
# Solutions for Electric Vehicle Batteries and Energy Storage Systems



# PRODUCT OVERVIEW

Sealing.  
Insulating.  
Conducting.  
Absorbing.  
Bonding.

We develop, design, and create  
the best solution for you.



## THERMAL MANAGEMENT

**STOKTHERM | SPXXXXX**  
SILICONE

**STOKTHERM | TPR**  
ACRYLIC

**STOKTHERM | TC/TCS**  
ACRYLIC (OPT. PET FILM)

**STOKTHERM | TPS**  
ACRYLIC

## SEALING & IMPACT CONTROL

**STOKSEAL | SILXSOFT**  
SILICONE FOAM

**STOKSEAL | SILSOFT**  
SILICONE FOAM

**STOKSEAL | SILMED**  
SILICONE FOAM

**STOKSEAL | SILHARD**  
SILICONE FOAM

**STOKSEAL | PUSOFT/MED/HARD**  
SEMI CLOSED CELL PU FOAM

**STOKSEAL | EPDM**  
CLOSED CELL EPDM FOAM

## THERMAL & FIRE PROTECTION

**STOKSHIELD | PH**  
MICA (FLEXIBLE & RIGID)

**STOKSHIELD | SR**  
SILICONE RUBBER

**STOKSHIELD | SF/CF**  
SILICA & CERAMIC FLEECE

**STOKSHIELD | VP**  
VULCANIC PAPER

## ELECTRICAL INSULATION

**STOKELECTRIC | PET**  
PET

**STOKELECTRIC | CPL**  
MULTI LAYER PC HALOGEN-FREE

**STOKELECTRIC | SG**  
PP

**STOKELECTRIC | SE**  
PP

**STOKELECTRIC | VP**  
VULCANIC PAPER

**STOKELECTRIC | PI**  
POLYIMIDE

**STOKELECTRIC | PH**  
MICA (FLEXIBLE & RIGID)

**STOKELECTRIC | SR**  
SILICONE RUBBER

## CELL SPACER & COMPRESSION PAD

**STOKCELL | SILPAD**  
PHASE-CHANGE SILICONE FOAM

**STOKCELL | PUR**  
PUR

**STOKCELL | SF/CF**  
SILICA & CERAMIC FLEECE

**STOKCELL | PUMHARD**  
SEMI CLOSED CELL PU FOAM

## SPXXXXX

Main Application	Thermal Management
Material	Thermal conductive silicone
Thickness in mm	0,25 to 10
Thermal conductivity in W/mK	1 to 10
Hardness Shore 00	5 to 80
Temperature range in °C	-50 to 200
Breakdown voltage kV/mm	> 10
Flame rating UL-94	V0

## TPR

Main Application	Thermal Management
Material	Thermal conductive acrylic
Thickness in mm	1 to 4
Thermal conductivity in W/mK	1 to 3
Hardness Shore 00	20 to 40
Temperature range in °C	-40 to 150
Breakdown voltage kV/mm	> 10
Flame rating UL-94	V0

## TC/TCS

Main Application	Thermal Management
Material	Thermal conductive acrylic (opt. PET film)
Thickness in mm	0,2 to 3
Thermal conductivity in W/mK	1 to 2
Temperature range in °C	-40 to 120
Breakdown voltage kV/mm	> 10
Flame rating UL-94	V0/VTM-0

## TPS

Main Application	Thermal Management
Material	Thermal conductive acrylic
Thickness in mm	1 to 4
Thermal conductivity in W/mK	1 to 3
Hardness Shore 00	20 to 40
Temperature range in °C	-40 to 125
Breakdown voltage kV/mm	> 10
Flame rating UL-94	V0

## SILXSOFT

Main application	High Temperature Sealing & Impact control
Material	Silicone foam
Thickness in mm	2 to 16
Density in kg/m <sup>3</sup>	200/210
Compression set % @ 70°C	< 5
Temperature range in °C	-55 to 200
CFD @ 25%/70°C in Mpa	0,01 (200)/0,025 (210)
Flame rating UL-94	V0

## SILSOFT

Main application	High Temperature Sealing & Impact control
Material	Silicone foam
Thickness in mm	1,5 to 15
Density in kg/m <sup>3</sup>	260
Compression set % @ 70°C	< 5
Temperature range in °C	-55 to 200
CFD @ 25%/70°C in Mpa	0,045
Flame rating UL-94	V0

## SILMED

Main application	High Temperature Sealing & Impact control
Material	Silicone foam
Thickness in mm	0,8 to 13
Density in kg/m <sup>3</sup>	350
Compression set % @ 70°C	< 5
Temperature range in °C	-55 to 200
CFD @ 25%/70°C in Mpa	0,09
Flame rating UL-94	V0

## SILHARD

Main application	High Temperature Sealing & Impact control
Material	Silicone foam
Thickness in mm	0,8 to 12
Density in kg/m <sup>3</sup>	400/450
Compression set % @ 70°C	< 5
Temperature range in °C	-55 to 200
CFD @ 25%/70°C in Mpa	0,15 (400)/0,18 (450)
Flame rating UL-94	V0



Tailored thermal conductivity



Tailored thickness and softness



Best in class electrical properties



Flame retardant



Sealing against water, dust and air



Cushioning & vibration control



Flame retardant

## PUSOFT

Main Application	Sealing & Impact control
Material	Semi closed cell PU foam
Thickness in mm	0,8 to 13
Density in kg/m <sup>3</sup>	240 to 400
Compression set % @ 70°C	< 5
Temperature range in °C	-40 to 90
CFD @ 25%/70°C in Mpa	0,02 (240)/0,065 (400)
Flame rating UL-94	HBF

## PUMED

Main Application	Sealing & Impact control
Material	Semi closed cell PU foam
Thickness in mm	0,8 to 13
Density in kg/m <sup>3</sup>	240 to 320
Compression set % @ 70°C	< 5
Temperature range in °C	-40 to 90
CFD @ 25%/70°C in Mpa	0,04 (240)/0,08 (320)
Flame rating UL-94	HBF

## PUHARD

Main Application	Sealing & Impact control
Material	Semi closed PU foam
Thickness in mm	0,8 to 13
Density in kg/m <sup>3</sup>	240 to 320
Compression set % @ 70°C	< 5
Temperature range in °C	-40 to 90
CFD @ 25%/70°C in Mpa	0,07 (240)/0,13 (320)
Flame rating UL-94	HBF

## EPDM

Main Application	Sealing & Impact control
Material	Closed cell EPDM foam
Thickness in mm	1 to 25
Density in kg/m <sup>3</sup>	80/130
Compression set % @ 70°C	< 50
Temperature range in °C	-40 to 100
CFD @ 25%/70°C in Mpa	0,015 (80)/0,035 (130)
Flame rating UL-94	FMVSS302 (>3mm)

## PH

Main application	Thermal insulation & Fire protection
Material	Mica (flexible & rigid)
Thickness in mm	0,1 to 2
Temperature resistance in °C	-40 to 850 (longterm) +1.000 (shortterm)
Thermal conductivity in W/mK	< 0,35
Breakdown voltage kV/mm	>6
Flame rating UL-94	V0
Specific features	physical strength
Colour	brown

## SR

Main application	Thermal insulation & Fire protection
Material	Silicone rubber
Thickness in mm	0,2 to 2
Temperature resistance in °C	-55 to 200 (longterm) +1.200 (shortterm)
Thermal conductivity in W/mK	< 0,25
Breakdown voltage kV/mm	>25
Flame rating UL-94	V0
Specific features	flexible phase change material
Colour	black, white

## SF/CF

Main application	Thermal insulation & Fire protection
Material	Silica & Ceramic fleece
Thickness in mm	1 to 10
Temperature resistance in °C	-55 to 1.000 (longterm)
Thermal conductivity in W/mK	< 0,05
Flame rating UL-94	V0
Specific features	flexible & high temperature
Colour	white

## VP

Main application	Thermal insulation & Fire protection
Material	Vulcanic paper
Thickness in mm	0,2 to 1
Temperature resistance in °C	-40 to 80 (longterm)
Thermal conductivity in W/mK	< 0,15
Breakdown voltage kV/mm	> 12
Flame rating UL-94	FMVSS302
Specific features	will not melt at high temperature and pressure
Colour	white, green, grey



Sealing against water, dust and air



Cushioning & vibration control



Flame retardant



Temperature resistance



Fire barrier



Thermal insulation



Best in class electrical properties

## PET

Main application	Electrical Insulation
Material	PET
Thickness in mm	0,05 to 0,5
Breakdown voltage kV/mm	> 10
Volume resistivity in Ohm-cm	10 E+18
Temperature range in °C	-40 to 150
Flammability UL-94	optional VTM-0/V0
Water absorption in %	< 0,8
CTI	400 to 600

## CPL

Main application	Electrical Insulation
Material	Multi layer PC halogen-free
Thickness in mm	0,2 to 1
Breakdown voltage kV/mm	> 7
Volume resistivity in Ohm-cm	1,2 E+16
RTI (Relative Thermal Index) in °C	80
Flammability UL-94	VTM-0/V0
Water absorption in %	< 0,1
CTI	175

## SG

Main application	Electrical Insulation
Material	PP
Thickness in mm	0,127 to 1,57
Breakdown voltage kV/mm	> 26
Volume resistivity in Ohm-cm	3,97 E+15
RTI (Relative Thermal Index) in °C	115
Flammability UL-94	VTM-0/V0
Water absorption in %	< 0,06
CTI	600

## SE

Main application	Electrical Insulation
Material	PP
Thickness in mm	0,2 to 1,57
Breakdown voltage kV/mm	> 26
Volume resistivity in Ohm-cm	3 E+15
RTI (Relative Thermal Index) in °C	90
Flammability UL-94	VTM-0/V0
Water absorption in %	< 0,06
CTI	600

## VP

Main application	Electrical Insulation
Material	Vulcanic paper
Thickness in mm	0,2 to 1
Breakdown voltage kV/mm	> 12
Volume resistivity in Ohm-cm	1,2 E+12
Temperature range in °C	-40 to 80
Flammability UL-94	FMVSS302
Moisture content in %	6,5

## PI

Main application	Electrical Insulation
Material	Polyimide
Thickness in mm	0,025 to 0,1
Breakdown voltage kV/mm	> 75
Volume resistivity in Ohm-cm	10 E+15
Temperature range in °C	-40 to 180
Flammability UL-94	VTM-0
Water absorption in %	3 to 10
CTI	100 to 175

## PH

Main application	High Temperature Electrical Insulation
Material	Mica (flexible & rigid)
Thickness in mm	0,1 to 2
Breakdown voltage kV/mm	> 6
Volume resistivity in Ohm-cm	1 E+13
Temperature range in °C	-40 to 850 (longterm) +1.000 (shortterm)
Flammability UL-94	VTM-0/V0
Water absorption in %	< 1
CTI	600

## SR

Main application	High Temperature Electrical Insulation
Material	Silicone rubber
Thickness in mm	0,2 to 2
Breakdown voltage kV/mm	> 25
Volume resistivity in Ohm-cm	10 E+14
Temperature range in °C	-55 to 200 (longterm) +1.200 (shortterm)
Flammability UL-94	VTM-0/V0
Water absorption in %	< 0,2
CTI	600



Score and fold  
from 2D to 3D  
design



Flame  
retardant



Best in  
class electrical  
properties



Score and fold  
from 2D to 3D  
design



Flame  
retardant



Best in  
class electrical  
properties

## SILPAD

Main application	Compression Pad & Thermal Propagation Protection
Material	Phase-change silicone foam
Thickness in mm	1 to 6
Density in kg/m <sup>3</sup>	340/500
Compression set % @ 70°C	< 1
Temperature range in °C	-55 to 200
CFD @ 25%/70°C in Mpa	0,08 (340)/0,2 (500)
Flame rating UL-94	V0
Thermal conductivity in W/mK	< 0,09
Breakdown voltage kV/mm	> 3,5

## SF/CF

Main application	Cell Spacer & Thermal Propagation Protection
Material	Silica & Ceramic fleece
Thickness in mm	1 to 10
Density in kg/m <sup>3</sup>	200 to 400
Temperature range in °C	-55 to 1.000 (longterm)
CFD @ 25%/70°C in Mpa	0,05 (200)/0,5 (400)
Flame rating UL-94	V0
Thermal conductivity in W/mK	< 0,05

## PUR

Main application	Cell Spacer / Compression Pad
Material	PUR
Thickness in mm	0,4 to 20
Density in kg/m <sup>3</sup>	80 to 250
Compression set % @ 70°C	< 5
Temperature range in °C	-40 to 100
CFD @ 25%/70°C in Mpa	0,01 to 0,1
Flame rating UL-94	optional V0
Thermal conductivity in W/mK	< 0,04
Breakdown voltage kV/mm	> 2,5

## PUMHARD

Main application	Cell Spacer / Compression Pad
Material	Semi closed cell PU foam
Thickness in mm	0,8 to 6
Density in kg/m <sup>3</sup>	160 to 320
Compression set % @ 70°C	< 5
Temperature range in °C	-40 to 90
CFD @ 25%/70°C in Mpa	0,04 (160)/0,3 (320)
Flame rating UL-94	HBF



Stokvis Tapes is dedicated to supplying high quality products that match customer's specifications and tolerances with a level of service that meets the most demanding requirements. Our processes are continuously monitored by external certifications and customer audits to ensure that all application requirements and specifications are fulfilled. In addition, our ambitious mindset allows us to constantly evolve ourselves and our product solutions.

What makes Stokvis Tapes unique is our ability to prove independent, fast, high quality, and accurate testing of properties and characteristics to determine how they will behave in relation to the customer's materials and applications.

Our customers' satisfaction is our top priority.



Cushioning & vibration control



Flame retardant



Fire barrier



Thermal insulation

# Stokvis Tapes Group

An Illinois Tool Works company



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**Global Reach, Act Locally!** Close to YOUR business on 3 continents, speaking YOUR language. Local support services including manufacturing & warehousing with global purchase power.

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**Long-Term Durability!** With more than 60 years experience in selected markets. Long-lasting and strong collaboration and joint developments with trusted partners with proven quality levels.

**Capacity to Invest!** Strong financial position giving us the ability to invest in new technologies, products and processes.

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