PRODUCT DATA SHEET

Heat Shield™ High Heat Thermal Insulation

USES:
✓ Steam Pipes
✓ Tanks
✓ Heat Exchangers
✓ Boilers
✓ Industrial Ovens
✓ Dyeing Machines
✓ Safe Touch Application
✓ Valves, Joints and Other Difficult To Insulate Areas
✓ Other Heat Process Equipment

BENEFITS:
✓ Energy savings
✓ Reduces carbon emissions
✓ Can be applied while in service
✓ Excellent Adhesion
✓ Non-toxic, water-based, low VOC
✓ Excellent corrosion prevention
✓ Outstanding durability and weathering
✓ Space Saving
✓ Easily applied by brush, roller or paint sprayer.
✓ Ideal for equipment that is not easily insulated by rigid or fibrous insulation
✓ Can be painted over
✓ Direct-to-metal
✓ Easy cleanup

OVERVIEW:

Thermal insulation, corrosion prevention and moisture resistant coating. Sustainable coating which reduces energy costs and carbon emissions. Indoor and outdoor use. Direct-to-Metal coating for surfaces from -40F (-40C) up to 400F (204C).

Nanotechnology-based insulation and corrosion prevention coating. Long-term performance and durability resulting in lower maintenance costs and longer asset life; reduces asset turnover and waste. Color: Translucent (Clear Coat) over surfaces below 170F/77C and opaque (white) over surfaces above 170F/77C. Smooth, matte finish.

ADVANTAGES:

THERMAL INSULATION: Excellent thermal insulation performance to maximize control of heat loss, contributing to reduced energy costs. Resistant to moisture infiltration, for consistent thermal performance over time.

CORROSION PREVENTION: Superior corrosion prevention of surfaces. Coating forms a tight bond with the substrate and eliminates issues with corrosion under insulation (CUI). Clear finish (below 170F/77C) allows visibility of substrate through the insulation coating.

ENVIRONMENTALLY FRIENDLY: Non-toxic, non-flammable, water-based coating is low VOC and environmentally friendly. Synavax™ coatings are a sustainable, green technology.

ADHESION: Excellent adhesion qualities to multiple metal and non-metal surfaces.

SURFACE TEMPERATURE REDUCTION: Insulates and reduces surface temperatures, making it an excellent safety coating to use for reducing hot surfaces to safer touch levels.

WEATHERING: Resistant to moisture and UV. The coating can be used in outdoor environments and performs well in extreme environments.

CONTACT/ORDERING:
Phone: 800-858-3176
Order Online: www.synavax.com
Theoretical coverage rate
Yields approximately 4 mils/100 microns wet film thickness (1 coat) over 450 square feet (42 square meters) of surface area, depending on surface.

Coverage rate for typical application
Yields approximately 40 mils/1000 microns wet film thickness (10 coats) over 45 square feet (4.2 square meters) of surface area, depending on surface.

Typical applied coat thickness
4 wet mils (100 microns) per coat

Typical dry film thickness (DFT) of 1 coat
0.75 mil (19 microns) DFT

Typical touch dry time for 1 coat
30 minutes to 2 hours

Typical hard dry time
72 hours

Typical full cure time
30 days, dependent upon environmental variables

Shelf life
2 years, from date of manufacture

VOC content
180 g/L (calculated)

Viscosity
3000-3500 (cps)

Salt Fog Corrosion Test (GM9540P)
Completed 24 cycles, no rust present

The GM9540P Accelerated Corrosion Test is an advanced cyclic method originally developed by General Motors and now the corrosion test preferred by the US Navy. Passing 8 cycles is considered the standard for an anticorrosion coating.

Cross Hatch Adhesion - ASTM D-3359
0% 5B, edges remain smooth, no flaking

Pull Apart Strength - ASTM D-4541
2400-2450 psi

Flame Spread - ASTM E84
Class A

Thermal performance - ISO 8990:1999
34.8% decrease in thermal conduction, 3-coat thickness

Thermal conductivity (BC/BP/JC issue 1)
No visible signs of cracking, flaking or disbondment. Temperature difference at internal temperature of 120°C = 28°C

CUI Exposure Test (BC/BP/JC issue 1)
No visible signs of cracking, flaking or disbondment. Consistent insulation performance over 100 day test.

Emissivity
0.91

Permeability
5 perms/inch @ 23 deg C.