



Nap-Gard®

7-0017VHT

VHT Black Beauty FBE

Revised: 7 October 2022

DESCRIPTION

Nap-Gard® 7-0017VHT is a fusion bonded epoxy powder designed to provide superior corrosion protection in severe down hole environments even when operating at high temperatures. Nap-Gard 7-0017VHT is formulated to have excellent chemical resistance against high levels of H₂S and CO₂ often seen in production tubing. Nap-Gard 7-0017VHT Black Beauty is generally recommended for use over a phenolic primer (Nap-Gard 7-1808 Red Phenolic Liquid Primer)†.

TYPICAL POWDER PROPERTIES

Color:	Black	Theoretical Coverage:	132 Ft ² /lb/mil
Specific Gravity:	1.46 ± .05	Density:	1460 ± 50 g/L CSA Z245.20-22
Typical Gel Time:	40-72 seconds	Shelf Life*:	12 months
CSA Z245.20-22 @ 205°C (401°F)		Below 25°C (77°F) and 50% RH	

TYPICAL PROPERTIES OF APPLIED FILM††

Recommended Film Thickness	Average	500µm (20 mils)
	Minimum	375µm (15 mils)

Glass Transition Temperature (T_{g3}) (DMA)	Minimum 205°C(401°F)
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<u>TEST / REQUIREMENT</u>	<u>METHOD</u>	<u>CRITERIA</u>	<u>RESULT</u>
Bending	CSA Z245.20-22	≥0.5°/dia. Length @23°C	Pass
Hardness	ASTM D2583 ASTM D2240	Barcol Shore D	68 Average 90 Average
Taber Abrasion	ASTM D4060	C17 wheel, 1Kg, 1000 Cycles	35 mg removal

AUTOCLAVE TESTING

Chevron JO Test Condition 2

<u>Sour Gas (20% Vol)</u> 20% H ₂ S 15% CO ₂ 65% CH ₄	<u>Temperature</u> 94°C (200°F)	<u>Pressure</u> 755 psi	<u>Duration</u> 96 Hrs.	<u>Results</u> Pass all phases No blisters No swelling No adhesion loss No delamination
<u>Hydrocarbon (40% Vol)</u> 50%(Vol) Kerosene 50%(Vol) Toluene				
<u>Aqueous Phase (40% Vol)</u> 25%(Wt) NaCl				



Technical Data Sheet

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Chevron JO Test Condition 4

<u>Sour Gas (20% Vol)</u>	<u>Temperature</u>	<u>Pressure</u>	<u>Duration</u>	<u>Results</u>
20% H ₂ S 15% CO ₂ 65% CH ₄	205°C (400°F)	755 psi	96 Hrs.	Pass all phases No blisters No adhesion loss No delamination
<u>Hydrocarbon (40% Vol)</u> 50%(Vol) Kerosene 50%(Vol) Toluene				
<u>Aqueous Phase (40% Vol)</u> 25%(Wt) NaCl				

Chevron JO Test Condition 5

<u>Sour Gas (20% Vol)</u>	<u>Temperature</u>	<u>Pressure</u>	<u>Duration</u>	<u>Results</u>
25% H ₂ S 20% CO ₂ 55% CH ₄	94°C (200°F)	750 psi	96 Hrs.	Pass all phases No blisters No swelling No adhesion loss No delamination
<u>Hydrocarbon (10% Vol)</u> 50%(Vol) Kerosene 50%(Vol) Toluene				
<u>Aqueous Phase (70% Vol)</u> 25%(Wt) NaCl				

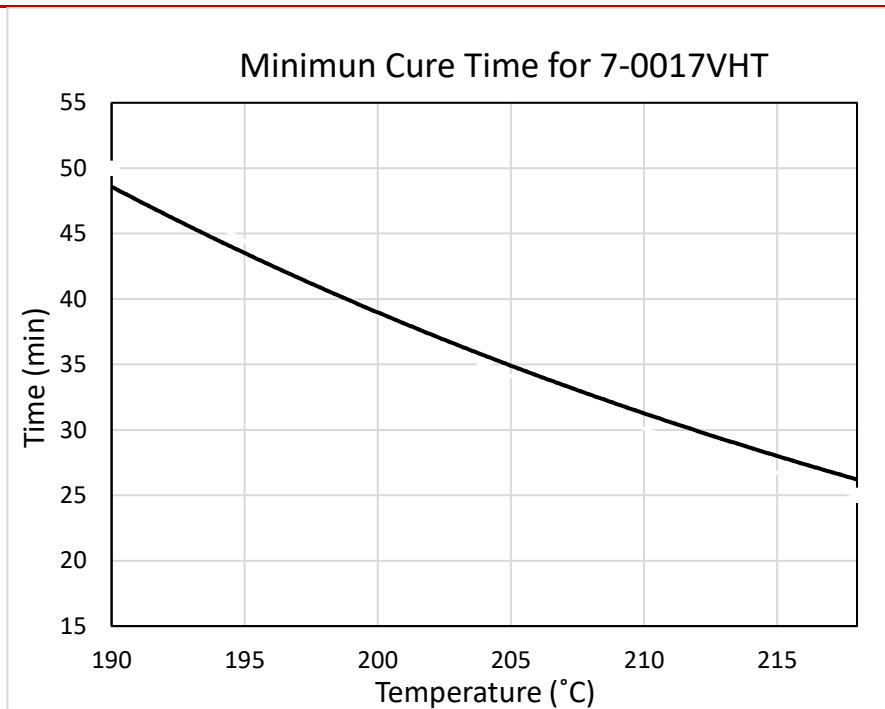
RECOMMENDED APPLICATION PARAMETERS

Surface Preparation	NACE SSPC Swedish Standard	#1 White Metal SP-5 Sa 3
Anchor Profile	Recommended Range Nominal	1.5 mils (38µm) - 3.5 mils (89µm) 2.5 mils (64µm), sharp, dense
Liquid Phenolic Primer Dry Film Thickness	Recommended Range	0.5 mils (13µm) - 1.0 mils (25µm)
Cured Powder Film Thickness	Recommended Range	15 mils (375µm) - 25 mils (625µm)
Preheat Temperature	Recommended Part Surface Temperature Range	400°F (205°C) - 425°F (218°C)
Cure Schedule	Follow Minimum Cure Time Chart Below	Minimum Tg ₃ : 205°C (401°F) by DMA

Always consult product Material Safety Data Sheet (SDS) prior to handling.

WARRANTY POLICY: Axalta Powder Coating Systems USA, Inc. ("Seller") certifies that all coatings delivered to Customer in unopened factory filled containers meet all pertinent quality standards presented in Seller's current published literature. Since matters of surface preparation, application procedures, curing procedures and other local factors that affect coating performance are beyond Seller's control; Seller assumes no liability for coating failure other than to supply replacement material for coating material proven to be defective. Customer will determine suitability of this product for its use and thereby assumes all risks and liabilities in connection therewith. Seller will not be liable for any injuries, damages or other losses derived, directly or indirectly, from or as a consequence of Customer's use of the product. **SELLER DISCLAIMS ALL OTHER WARRANTIES, EXPRESS OR IMPLIED, RELATING TO ITS PRODUCTS AND THEIR APPLICATION, INCLUDING BUT NOT LIMITED TO WARRANTIES OF MERCHANTABILITY AND FITNESS FOR PARTICULAR PURPOSES.**





TRANSPORTATION AND STORAGE

The material is stable during transportation and storage at temperatures below 25°C (77°F) and 50% RH.

† Performance is greatly dependent on the service environment conditions; therefore, it is the end user's responsibility to test this product to the specific service conditions before final application. Contact Axalta Coating Systems® Technical Staff for more information on performance testing

†† Performance depends on many factors, including film thickness. Consult Nap-Gard® Specialist for specific recommendations.

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