



Nap-Gard®

7-0017HT

HT Black Beauty FBE

Revised: 29 September 2022

DESCRIPTION

Nap-Gard® 7-0017HT is a fusion bonded epoxy powder designed to provide superior corrosion protection in severe down hole environments. Nap-Gard 7-0017HT is formulated to have excellent chemical resistance against high levels of H₂S and CO₂ often seen in production tubing. Nap-Gard 7-0017HT Black Beauty is generally recommended for use over a phenolic primer (Nap-Gard 7-1808 Red Phenolic Liquid Primer) and for service to 150°C (302°F)†.

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		Below 25°C (77°F)	
@ 205°C (401°F)		and 50% RH	

TYPICAL PROPERTIES OF APPLIED FILM††

Recommended Film Thickness	Average	400µm (16 mils)
	Minimum	250µm (10 mils)

Glass Transition Temperature (T_g) (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	Barcol	68 Average
	ASTM D2240	Shore D	90 Average
Taber Abrasion	ASTM D4060	C17 wheel, 1Kg, 1000 Cycles	35 mg removal

† 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.



AUTOCLAVE TESTING

JO WAFRA Test Condition 2

<u>Gas Phase</u>	<u>Temperature</u>	<u>Pressure</u>	<u>Duration</u>	<u>Results</u>
20% H ₂ S 15% CO ₂ 65% CH ₄	94°C (201°F)	755 psi	96 Hrs	Pass all phases No blisters No swelling No adhesion loss No delamination
<u>Hydrocarbon Phase</u> 50% (vol.) Kerosene 50% (vol.) Toluene				
<u>Aqueous Phase</u> 25% (wt.) NaCl				

JO WAFRA Test Condition 3

<u>Gas Phase</u>	<u>Temperature</u>	<u>Pressure</u>	<u>Duration</u>	<u>Results</u>
20% H ₂ S 15% CO ₂ 65% CH ₄	149°C (300°F)	740 psi	96 Hrs	Pass all phases No blisters No swelling No color change No delamination
<u>Hydrocarbon Phase</u> 50% (vol.) Kerosene 50% (vol.) Toluene				
<u>Aqueous Phase</u> 25% (wt.) NaCl				

JO WAFRA Test Condition 5

<u>Gas Phase</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 (201°F)	750 psi	96 Hrs.	Pass all phases No blisters No swelling No adhesion loss No delamination
<u>Hydrocarbon Phase</u> 50% (vol.) Kerosene 50% (vol.) Toluene				
<u>Aqueous Phase</u> 25% (wt.) NaCl				

JO WAFRA Test Condition 6 (Modified)

<u>Gas Phase</u>	<u>Temperature</u>	<u>Pressure</u>	<u>Duration</u>	<u>Results</u>
25% H ₂ S 20% CO ₂ 55% CH ₄	120°C (248°F)	1800 psi	96 Hrs.	Pass all phases No blisters No swelling No color change No delamination
<u>Hydrocarbon Phase</u> 50% (vol.) Kerosene 50% (vol.) Toluene				
<u>Aqueous Phase</u> 25% (wt.) NaCl				

Always consult product 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.**



API RP 5L7 (Modified)

Gas Phase

0.5% H₂S
5% CO₂
94.5% CH₄

Temperature

150°C(302°F)

Pressure

1000 psi

Duration

16 Hrs.

Results

Pass all phases
No blisters
No cracks
No swelling
No color change
No adhesion loss

Aqueous Phase

5% (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

10 mils (250µm) - 20 mils (500µm)

Preheat Temperature

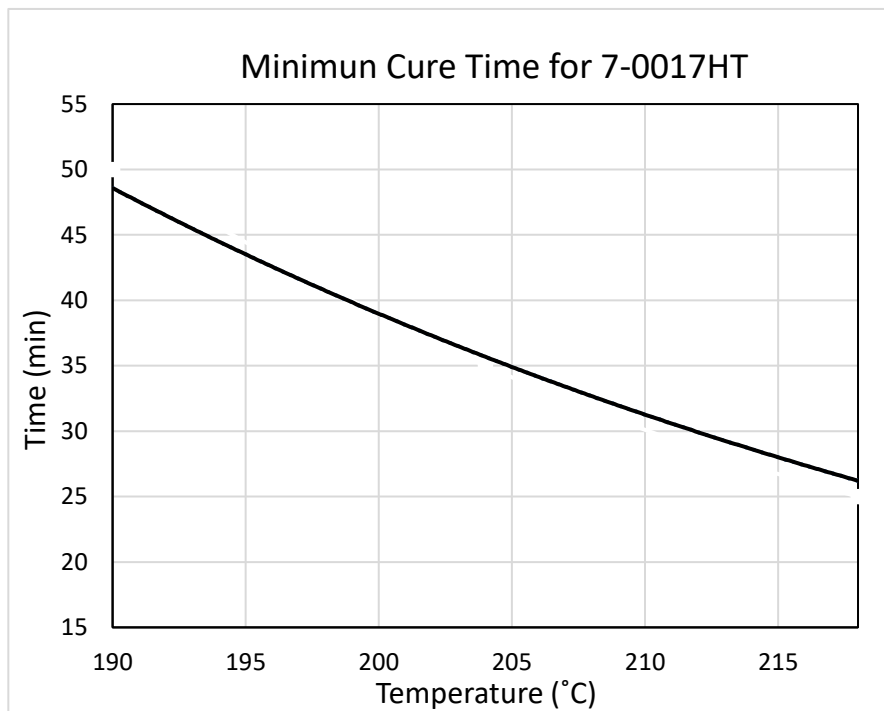
Recommended Part Surface
Temperature Range

400°F (205°C) - 425°F (218°C)

Cure Schedule

Follow Minimum Cure Time Chart
Below

Minimum T_{g3}: 205°C (401°F) by DMA



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TRANSPORTATION AND STORAGE

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

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