



## Composite Manhole Covers

# A Solution to Your Sanitary Sewer Overflow Problems

## Technical Data Sheet

Revision: October, 2020

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### Description:

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SuperCover is a polymer matrix, non-metallic, fiber reinforced, composite, manhole cover; capable of withstanding traffic loading requirements that meet or exceed H-20 & H-25 rating. SuperCover offers features such as: self-aligning design, antirotating construction, secure bolting into manhole, and compatibility with inflow dish for maximum I&I prevention. SuperCover also comes compatible with the 3M locator dish for manhole identification and location. SuperCover has been approved by Texas Department of Transportation (TXDoT).

### Specification:

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SuperCover is offered in two sizes that are most common in municipal manholes; 24" and 30" clear opening. These two openings accommodate for 95% of requirements for new and/or existing construction today. OSHA has adopted 30" clear opening for human entry confined spaces. SuperCover fully meets and complies with the requirements for OSHA for entry confined spaces. SuperCover is offered in two styles; Sanitary Sewer Overflow (SSO) non-hinged and hinged series. Non-hinged SSO series covers bolted down into place with double gaskets for maximum locking and I&I protection. Hinged covers are affixed to ring using a double hinge capable of 189 degree opening. All SuperCover's are compatible with our fully composite SureSeal inner dish and double gasketed for complete I&I prevention.

### Strength & Durability:

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SuperCover has been tested by Trenchless Technology Center at Louisiana Tech University and signed off by a US registered licensed professional engineer. The US Department of Transportation requires gratings and manhole covers to be tested for load ratings under AASHTO M-306-10. In order to be classified H-20 Heavy Duty Product must withstand 16,000 lbs. for 60 seconds without cracking or breaking. A 2.5 times safety factor is required which brings the total proof load to 40,000 lbs. SuperCover was able to average 76,000lbs total force weight before initial signs of cracking or destruction. SuperCover is able to perform 60,000lbs over the requirement for H-20 & H-25 rating; and 0.0 gallons per hour in I&I testing.

### Installation:

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SuperCover is installed using conventional methods as classic manhole covers. Only SuperCover approved tooling should be used when assembling and disassembling the ring and cover.

The bottom of the composite manhole cover shall sit flush with the top of the manhole cone or the adjustment riser ring. Since the composite manhole cover is water tight the top of the cover should be flush and level with the ground, street, sidewalk, or paved area. A concrete pad is recommended to secure and anchor the composite manhole cover in place. A detail sheet shall be furnished as part of construction drawings (see detail sheet portion of submittal).

**In the event that the composite manhole cover is being installed on an elevated raised manhole, concrete anchor bolts, J-hooks, and grout/concrete may be used to secure the composite cover to the manhole opening.**

Features:

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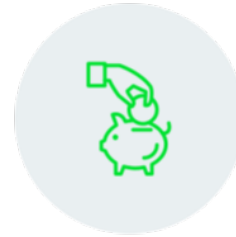
Exceeds 50,000lb Proof Load Test AASHTO



Water Tight



Anti-Corrosive Inert Composite Materials



No Scrap Metal Value



Locate with: 3M™ iD Disk Marker 1414-XR/iD



Self-Extinguishing



Odor-Eliminating



Bolted Down to Frame, Cover & Inner Dish



Manufactured at an ISO 9000 Certified Plant



NO Unlawful Entry: Bolt & Locking System



Anti-Theft



5 Year Warranty

**FEATURE**

**SUPERCOVER**

<b>ANTI-ROTATING</b>	✓
<b>INFLOW DISH-CAPABLE</b>	✓
<b>BOLTED DOWN INFLOW DISH</b>	✓
<b>DOUBLE GASKET</b>	✓
<b>ODOR PREVENTION</b>	✓
<b>FALL PROTECTION INNER DISH</b>	✓
<b>SELF ALIGNING</b>	✓
<b>H-25 LOAD RATED</b>	✓

## Performance Data:

<b>ASTM D790-17 Flexure Strength Cover</b>	20,393 psi
<b>ASTM D790-17 Flexure Strength Retention After UV Exposure Cover</b>	Pass, >85% Retention
<b>ASTM D790-17 Flexure Strength Frame</b>	19,728 psi
<b>ASTM D790-17 Flexure Strength Retention After UV Exposure Cover</b>	Pass, >85% Retention
<b>ASTM C1028-07e1 Static Coefficient of friction</b>	0.674
<b>ASTM D256-10 Izod Impact Testing</b>	1,473 J/m
<b>ASTM D635-18 Rate of Burning in Horizontal</b>	Samples Self-Extinguish
<b>ASTM D4060-14 Taber Abrasion Testing 10,000 cycles Cover</b>	60.2 milligrams
<b>ASTM D4060-14 Taber Abrasion Testing 10,000 Cycles Frame</b>	72.3 milligrams
<b>ASTM C501-84 Wear &amp; Abrasion Testing 1,000 cycles Cover</b>	Pass, <300
<b>ASTM C501-84 Wear &amp; Abrasion Testing 1,000 cycles Frame</b>	Pass, <300
<b>ASTM D570-98 Water Absorption</b>	0.37%
<b>ASTM G154-16 UV Testing Cover &amp; Frame</b>	No deformation
<b>AASHTO Proof Load Testing 40,000 lbs. H-25</b>	Pass, no cracking or deformation
<b>AASHTO Proof Load Testing 70,000 lbs. H-25</b>	Pass, no cracking or deformation
<b>Infiltration &amp; Inflow 24-Hrs</b>	0.0

\*Testing results were conducted with Sureseal inner dish in unit.

## Specs:

	ID	OD	Rim Thickness	Inner Dish	Ring	Cover	Ring & Cover
<b>NH SSO 24"</b>	24"	36"	4.0"	8.6 lb.	61.8 lb.	72.6 lb.	143 lb.
<b>NH SSO 30"</b>	30"	41"	4.0"	13.2 lb.	66.4 lb.	72.6 lb.	185 lb.
<b>DH 30"</b>	30"	41"	4.0"	13.2 lb.	66.4 lb.	72.6 lb.	185 lb.

**NH SSO: Non-Hinged Sanitary Sewer Overflow**

**ID: Inner Diameter (Opening)**

**OD: Outer Diameter Ring & Cover**

**I&I: Infiltration & Inflow**



Sanitary Sewer Overflow Series

## Manufacturing Process:

SuperCover is designed and distributed by Wastewater Rehabilitation Professionals. Supercover is produced using Sheet Molding Compounding (SMC) in order to meet the stringent manufacturing standards that municipalities demand. SuperCover is molded using state of the art machine and tool technology in a manufacturing facility that is ISO certified by IQNet to conform to ISO 9000 and ISO 1400 standards. SuperCover's non-metallic unique composition is fiber reinforced to ensure maximum strength and durability SuperCover is also enhanced by the compatibility with Sureseal inner dish for maximum I&I protection. Before the finished product is promoted to the quality assurance phase it is meticulously analyzed for imperfections.

## Quality Assurance Process:

Each SuperCover is examined for defects or inconsistencies prior to being distributed.

## Packaging:

SuperCover comes stacked with five covers on a pallet, shrink-wrapped and banded for extra protection.

## Warranty:



SuperCover comes with a 5 year, no hassle warranty. If SuperCover is delivered with defects contact BlueGreen Municipal for warranty information.

## Precautions:

SuperCover weights range from 117 to 185 lbs. always proceed with caution when lifting or moving supercovers. Do not attempt to lift a supercover without assistance; or improper handling of weight distribution. BlueGreen Municipal is not responsible for injuries when installing or transporting SuperCover.

In accordance with C.F.R 1910.1200, this product is an "article" and therefore not subject to the HCS 2012 SDS labeling and Requirements.

## TXDOT Approval & Third-Party Certification:

**Approved by TXDoT for use in municipal road ways.**



\*NOT AN ENDORSEMENT