packgen

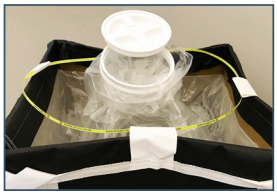
COUGAR

COMPOSITE CHEMICAL CONTAINERS

PackGen's Cougar CATainers are the first and ONLY catalyst containers designed and approved specifically for storage and transportation of spent and fresh catalyst. Cougar CATainers are designed for PG I materials and have weight capacity up to 4,000 lbs of PGII materials, yet they are durable, lightweight and collapsible, saving you space, effort, and money.

FEATURES & BENEFITS

- Allows for 30% more catalyst shipped per trailer/sea container than with flow bins
- Standard liner system and spin cover keeps oxygen out and handles temperatures up to 300F
- UV treated polypropylene exterior and reinforced lid allows for outside storage in all weather conditions
- Collapsible /stackable design saves on warehouse space and on transportation costs when compared to flow bins and drums
- Fully meets IMDG/UN/ADR requirements for international transport
- Reduces overall catalyst handling and transportation costs due to its light weight and collapsible design
- Approved for all types of self heating catalyst, including precious metals, wet dumped material and all all other types of materials/processes



Questions about our Cougar CATainers? Let the experts at PackGen guide you through the ins and outs of this time saving and cost efficient catalyst transport option.

Sales and Technical Assistance: 207.784.4195 ext 2 sales@packgen.com

PRODUCT SPECS

Packaging Identification Code
11HG2W

Max Gross Mass
X **1,361 Kg (3,000 lbs)**
Y **1,815 Kg (4,000 lbs)**
Z **2,722 Kg (6,000 lbs)**

Volume/Dimensions
52 cu ft. (~1.5m³)
Width **41" (1040 mm)**
Length **41" (1040 mm)**
Height **56" (1422 mm)**

40 cu ft (~1.1 m³)
Width **41" (1067 mm)**
Length **41" (1067 mm)**
Height **39" (991 mm)**

Spout Opening
Spin Cover **11" (280 mm)**
Spout **17" (430 mm)**

Optional Open Top Available

Exterior
UV Treated High Density Woven Polypropylene

Structure
Multi-Layer Composite Construction

Liner
High-Temp/Low-Permeation Co-extrusion

Recommended Temp Limits F/C
220° F (100° C)

Material Comparability
UN3190/UN3077

www.packgen.com

SECTION I: CERTIFICATION

DESIGN QUALIFICATION of the Packgen Corporation Cougar Style 41" x 41" x 56" Composite IBC (320889)

TEN-E Packaging Services, Inc. is a current DOT UN Third-Party Certification Agency under §107.403 and certifies that the **Packgen Corporation** packaging referenced above has passed the standards of the DEPARTMENT OF TRANSPORTATION'S TITLE 49 CFR; Performance Oriented Packaging Standards, Section 178. This package is also certified under IMDG and the UN Recommendations on the Transport of Dangerous Goods. It is the responsibility of the end user to determine authorization for use under these regulations. The use of other packaging methods or components other than those documented in this report may render this certification invalid.

SUMMARY OF PERFORMANCE TESTS					
UN / DOT TEST	**CFR REFERENCE**	**TEST LEVEL**	**TEST CONTENTS**	**TEST COMPLETED**	**TEST RESULTS**
Vibration	178.819	4.0 Hz – 1 Hour	Coal Pellets	November 29, 2018	PASS
Bottom Lift	178.811	2,494.8 Kg	Coal Pellets	November 29, 2018	PASS
Stacking	178.815	2,721.6 Kg – 24 Hours	Coal Pellets	November 30, 2018	PASS
Drop	178.810	1.2 m	Coal Pellets	December 3, 2018	PASS
Drop	178.810	1.8 m	Clay / Coal Mix	December 5, 2018	PASS

TEST REPORT NUMBER:	18-MN40109
UN MARKING: (CFR 49 – 178.703)	(un) 11HG2W / X / * / USA / M5381 / 0 / 1361 (un) 11HG2W / Y / * / USA / M5381 / 0 / 1815
PACKAGING IDENTIFICATION CODE:	11HG2W (178.707 Composite IBC)
PERFORMANCE STANDARD:	X (Packaging meets Packing Group I, II and III tests) Y (Packaging meets Packing Group II and III tests)
MONTH AND YEAR OF MANUFACTURE:	*
STATE AUTHORIZING ALLOCATION OF THE MARK:	USA
PACKAGING CERTIFICATION AGENCY:	(+AA) TEN-E Packaging Services, Inc. (Newport, MN CAA #2006030022)
SYMBOL OF MANUFACTURER:	M5381 (Manufacturer's registered symbol)
STACKING TEST LOAD:	0 (56" container not intended to be stacked) 2655 Kg (**see note on page 2 for 38" tall container)
MAXIMUM PERMISSIBLE GROSS MASS:	X: 1,361 Kg (3,000 Lbs.) Y: 1,815 Kg (4,000 Lbs.)
PERIODIC DESIGN REQUALIFICATION DATE:	December 5, 2019
CLIENT CA OR SP NUMBER:	CA2006040035
ADDITIONAL REQUIRED IBC MARKINGS (CFR 49 – 178.703(b)):	
TARE MASS (Kg):	Insert individual IBC tare mass
DATE OF LAST INSPECTION:	Insert Month & Year of Last Inspection

ALL OTHER WARRANTIES, EXPRESSED OR IMPLIED, INCLUDING ANY WARRANTY THAT THE PACKAGING TESTED IS MERCHANTABLE OR FIT FOR A PARTICULAR PURPOSE, ARE DISCLAIMED. In no event shall TEN-E Packaging Services, Inc. liability exceed the total amount paid by **Packgen Corporation** for services rendered. In the event of future changes to the above referenced test standards, it is the responsibility of **Packgen Corporation** to determine whether additional testing or updating of past testing is necessary to verify that the packaging we have tested remains in compliance with those standards.

MANUFACTURER:

Packgen Corporation
65 First Flight Drive
Auburn, ME 04211

Larry J. Anderson
Manager, Technical Services
TEN-E Packaging Services, Inc.
1666 County Road 74
Newport, MN 55055

U.S. Department
of Transportation

Pipeline and Hazardous
Materials Safety Administration

East Building, PHH – 32
1200 New Jersey Avenue, Southeast
Washington, D.C. 20590

APPROVAL CA2006040035
(SIXTH REVISION)
ISSUED BY THE COMPETENT AUTHORITY OF THE UNITED STATES
EXPIRATION DATE: JANUARY 31, 2023

1. **APPROVAL HOLDER:** packgen
Auburn, ME

2. **REGULATORY AUTHORITY:** 49 CFR 178.801(i) - Approval of equivalent packagings.

3. **SYNOPSIS:** packgen is authorized to manufacture, mark, sell and use fiberboard Composite Intermediate Bulk Containers (IBC) marked UN 11HG2W for the transportation of solid hazardous materials in accordance with the provisions of this approval. The most recent revision supersedes all previous revisions.

4. **BASIS:** This approval is issued in response to packgen's application dated January 23, 2018 and additional information dated February 21, 2018.

5. **PERIOD OF VALIDITY AND CONDITIONS OF APPROVAL:** This approval does not provide relief from any requirement of the Hazardous Materials Regulations except as stated herein. This approval is valid until the posted expiration date or unless suspended or terminated by the Associate Administrator for Hazardous Materials Safety.

   a. Approved Materials: Solid hazardous materials that are authorized to be transported in UN 11HG2 fiberboard Composite IBCs in accordance with IB Codes (IBC Codes) IB6, IB7, and IB8 in Table 1 under 49 CFR 172.102(c)(4), may be transported in packagings authorized under the terms of this approval.

   b. Packaging Requirements: Packagings shall be fabricated as described below:

(1) The outer packaging shall consist of a minimum of one layer(s) of 1100 Mullen burst strength triple wall corrugated fiberboard. The fiberboard must be securely and completely laminated between an outer layer of coated woven polypropylene and an inner polyethylene lining. As an alternative to the inner polyethylene lining, the fiberboard may be coated with emulsified polyethylene.

(2) The fiberboard forming the vertical sidewalls shall form a continuous sleeve and the fiberboard may not have gaps between the sidewalls.

(3) The hazardous material must be contained in either: a flexible polyethylene inner receptacle (liner) or in a flexible inner receptacle (liner) manufactured from a material that is compatible with the hazardous material. Either receptacle configuration must meet the requirements specified in § 178.707(c)(3). In addition, either receptacle configuration must have a minimum thickness of 6 mils and capable of being securely closed. The inner receptacle (liner) shall be so attached to the outer packaging as to form a secure and permanent attachment. The inner and outer packaging are to be filled, stored, transported, and emptied as a unit.

(4) During transportation the outer packaging must be securely attached to a pallet that provides complete protection of the base of the outer packaging.

(5) The IBC must have an upper cover consisting of a complete layer of polypropylene laminated fiberboard, a complete layer of fiberboard enclosing the inner receptacle, or the fiberboard may be coated with emulsified polyethylene.

(6) The walls of the IBC including the top and bottom, must meet the minimum puncture resistance requirements in § 178.708(c)(2)(i).

c. Testing Requirements: Design qualification testing and periodic requalification testing shall be as for a composite IBC except as follows:

(1) Bottom lift test. All IBC designs must be subject to the bottom lift test specified in § 178.811.

(2) Top lift test. If the IBC is intended to be top lifted, it shall be subject to the top lift test specified in § 178.812(b)(2) for flexible IBCs.

(3) Stacking Test. All IBCs must be subject to the stack test specified in § 178.815(C)(2), for composite IBCs of other than plastic materials.

d. Marking Requirements: Each packaging prepared under the provisions of this approval must be plainly marked with the approval number and the letter "W" following the package identification code of UN 11HG2.

6. **MODES OF TRANSPORTATION AUTHORIZED:** Motor vehicle, rail freight, and cargo vessel.

7. **SPECIAL PROVISIONS:**

a. This approval supersedes all previous approvals issued to Wrangler Corporation for the manufacture, mark and sale of UN 11HH2 and UN 11HH2W IBCs.

b. A current copy of this approval must be maintained and made available for examination at each location where materials are packaged and offered for transportation.

c. A current copy of this approval must be maintained and made available for examination at each location where packagings authorized under this approval are manufactured, marked, or tested.

d. Any person may use the packaging(s) authorized by this approval for the transportation of the hazardous materials specified in paragraph 5.a above, only in conformance with the terms of this approval.

e. Any person who receives a package covered by this approval may reoffer it for transportation provided no modification or change is made to the package and it is reoffered for transportation in conformance with this approval.

f. This approval in no way affects the need to obtain any required authorizations from other agencies of the United States Government or from the competent authorities of countries of origin, transit and destination.

g. The approval holder must maintain a record that contains a listing of the number of packagings manufactured, marked, sold, and tested under the terms of the approval. This record must be made available upon request to a DOT representative or an enforcement official.

h. A test report documenting satisfactory design qualification testing of IBCs manufactured in accordance with this approval must be on file with the Office of Hazardous Materials Safety Approvals and Permits Division prior to the sale of such IBCs.

i. IBCs meeting the terms of this approval and currently marked "UN11HH2" or "UN11HH2W" may continue to be used until the existing supply is exhausted. New manufacture is not permitted.

j. Shipments or operations conducted under this approval are subject to the Hazardous Materials Incident Reporting requirements specified in 49 CFR 171.15 – Immediate notice of certain hazardous materials incidents, and 49 CFR 171.16 – Detailed hazardous materials incident reports. In addition, the approval holder must notify the Associate Administrator for Hazardous Materials Safety, in writing, of any incident involving a package, shipment, or operation conducted under the terms of this approval.

8. **GENERAL PROVISIONS**:

a. Failure by any person to comply with the terms and conditions of this approval and the Hazardous Materials Regulations, 49 CFR Parts 171-180 may result in the modification, suspension or termination of that person's authority to use this approval. Failure to comply may also subject that person to penalties prescribed by 49 U.S.C. §§ 5123 and 5124. This approval may be modified, suspended or terminated in its entirety if that action is justified in light of changes in circumstances or additional information not

available when this approval was issued. Unless immediate modification, suspension or termination is necessary to avoid a risk of significant harm to persons or property, before action is taken, that person will be notified and provided with an opportunity to show why the proposed action should not be taken.

b. Each "Hazmat employee", as defined in § 171.8, who performs a function subject to this approval must be provided training on the requirements and conditions of this approval in addition to the training required by §§ 172.700 through 172.704.

c. Any person operating under the terms of this approval must comply with the security plan requirement in Subpart I of Part 172 of the HMR, when applicable.

Issued in Washington, D.C.

Dated: 03/30/2018

For William Schoonover
Associate Administrator for Hazardous Materials Safety

Address all inquiries to: Associate Administrator for Hazardous Materials Safety, Pipeline and Hazardous Materials Safety Administration, Department of Transportation, Washington, D.C. 20590. Attention: PHH-30.