

Pei Evaluation Service[®] is an accredited **ISO Standard 17065** Product Certifier, accredited by the IAS. This **Product Evaluation Report** represents a product that **Pei ES** has Evaluated. This product has a Product Evaluation Service Agreement & Follow-up Inspection Service Agreement. This **Product Evaluation Report** in no way implies warranty for this product or relieves **USG Interiors**, LLC of their liability for this product. This **PER** is an official document if it is within one year of the initial or reapproval date.

Report Owner USG Interiors, LLC 550 West Adams Street Chicago, Illinois 60661

Product

USG Donn[®] AdvanceSpan Suspension System

PER-16100

Initial Approval October, 2016 Re-Approved October, 2020

See all Pei ES Listings at: www.p-e-i.com

Approved Manufacturing Locations USG Interiors, LLC Plant # 601 1000 Crocker Rd. Westlake, OH 44145

Evaluation Report Information

Email: usg4you@usg.com Phone USG Support: 800.USG4YOU

General Details

This report covers the **USG Donn AdvanceSpan** Suspension System. **USG Interiors, LLC** has a Product Evaluation Service Agreement with *Pei* **Evaluation Service**[®] (*Pei* **ES**) and Follow-up Inspection Service Agreement with *Progressive Engineering Inc.* (*Pei*). The manufacturing location shown in this **PER** has an approved Quality Control Manual and is audited Quarterly by *Pei*.

Product Description

The **Donn AdvanceSpan** Systems described in this report, are assemblies used in interior general-use areas only. The suspended ceiling systems consist of DXASHRC & DXTASHRC Main Tees, US44 Channel Molding with US44CC Channel Clips, ASMTSP Splice Plates, and ASCBC Cross Brace Clips. All steel framing members (Main Tees, Cross Tees, & Wall Molding) have a minimum Type G30 hotdipped galvanized coating and are manufactured using ASTM A653 steel with a minimum yield strength of 30-ksi. US44CC Channel Clips and ASMTSP Splice Plates are manufactured from minimum 30-ksi steel conforming to ASTM A653 with a minimum G90 galvanized coating.

General Product Use

1. **Donn AdvanceSpan** Systems shall be installed in accordance with the *Donn AdvanceSpan Installation Guide (AC3325)* and are subject to the conditions of this **PER**. A copy of the installation guide shall be made easily available to the installer.

2. Complies with ASTM C635 and must be installed in accordance with ASTM C636, ASTM E580, CISCA, and standard industry practices, within applicable code requirements.

3. All construction, wood or steel framing, beams, joist, stringers and associated connections needed to support the **Donn[®] AdvanceSpan** Ceiling System are outside the scope of this **PER**. All construction shall follow applicable codes or be designed by a licensed Engineer.

4. Finish is not UV-resistant. All **USG** Donn Brand Suspension Grid Systems shall not be installed where directly exposed to sun or weather.

5.In Seismic design categories D, E, F this product shall be approved by a registered design professional.

Properties Evaluated

Donn AdvanceSpan Ceiling System shall be installed in accordance with the provisions of ASTM C636 and ASTM E580 unless otherwise qualified through testing. This suspension system has been uniform load tested in accordance with the methods outlined in ASTM C635 with modifications for longer spans.

Code Compliance Meets requirements for Suspended Ceilings in accordance with:

2012, 2015 & 2015 International	2012, 2015 & 2018 International			
Residential Code	Building Code			
Section R104.11	Section 104.11 Section 1613	Section 808 2506.2.1		

Meets the requirements of ASTM C635 (modified) and installation requirements of ASTM C636 as required in the 2012, 2015 & 2018 IBC. Meets the requirements of AC156 for Seismic Certification by Shake-table Testing of Non-Structural Components.

Seismic Classification

Table 1 - Seismic Design Classification

Selmsic Design Category A, B	Seimsic Design Category C	Seimsic Design Category D, E, F		
No Requirement	Intermediate Duty	Heavy Duty		

Standard Load Ratings

Main Tee	Metal Thickness	ASTM	Class⁴	Maximum Span			
	(in)	8' Max Span	7' Max Span ³	7' Max Span	8' Max Span	8.5' Max Span	
DXASHRC	0.021	Intermediate Duty	Heavy Duty	16.0	12.0	5.0	
DXTASHRC	0.021	Intermediate Duty	Heavy Duty	16.0	12.0	5.0	

Table 2 - Rated Loads⁵

Notes:

1. ASTM Class is valid when the ceiling grid is installed in accordance with ASTM C636 and/or ASTM E580.

2. Rated loads are based upon the load at a deflection limit of L/360.

3. All spans of 7-feet or less meet the requirements of Heavy Duty in accordance with the ASTM C635.

4. ASTM C635 Class, Table 1: ≥ 5 lb/ft.; Light Duty Intermediate Duty ≥ 12 lb/ft; Heavy Duty ≥ 16 lb/ft

5. Refer to Table 3 for alternative system installations approved for use in Seismic Design Category C and/or D, E, & F when tested in accordance with AC156.

Shaketable Qualified Installations

Table 3 - USG Donn AdvanceSpan AC156 Seismic Qualified Installations

	Passed Approved		Main Tee ³		Cross Tee ⁴		Wall	Maximum	Figures for Adjacent	Figures for	
System ID	AC156 @	Seismic	USG	Unsupported	Spacing	USG Model	Maximum	Molding ³	System	"Floating" Sides	Adjacent Fixed
-	55 (g)	Category	woder	Length		Options	Spacing	•	weight" (pst)	(Clearance)	Sides
ASDX Suspension System	3.0	DEE	DXAS	8'-6"	2'-0"	DX216	4'-0"	US44	4.0	Figure 5 (3/4" Gap)	Figure 6
		D, L, I				DX424	4'-0"				
	3.0 D, E	DEE		S 7'-0"	4'-0"	DX216	2'-0"	US44	4.0	Figure 5 (3/4" Gap)	Figure 6
		D, L, I	DARO			DX424	2'-0"				
	2.75 C	C	DXAS	8'-0"	4'-0"	DX216	2'-0"	US44	3.0	Figure 7 (3/8" Gap)	Figure 7
		0				DX424	2'-0"				(3/8" Gap)
ASDXT Suspension System	3.0 D, E,			6 8'-6"	2'-0"	DXT222	4'-0"	US44	4.0	Figure 5 (3/4" Gap)	Figure 6
		D, E, F	F DATAS			DXT424	4'-0"				
	3.0	D, E, F	DXTAS	7'-0"	4'-0"	DXT222	2'-0"	US44	4.0	Figure 5 (3/4" Gap)	Figure 6
						DXT424	2'-0"				
	2.75 C	C		<u>8' 0"</u>	<i>\</i> \' \0"	DXT222	2'-0"	11944	3.0	Figure 7 (3/8" Cap)	Figure 7
		DATAS	0-0	4-0	DXT424	2'-0"	0344	5.0	Figure 7 (5/6 Gap)	(3/8" Gap)	

Notes:

1. All systems are approved for use in Seismic Design Category A, B, and C. Systems approved for Seismic Design Category C may be considered Intermediate Duty installations, and systems approved for Seismic Design Category D,E, & F may be considered Heavy Duty installations in accordance with the definition from ASTM C635.

2. Systems from Table 3 are limited to use with the maximum unsupported length shown. Unsupported length is maximum main tee span between wall molding supports without the use of hanger wires, perimeter wires, or splay wires.

3. See Figure 1 for main tee and wall molding details.

4. See Figure 4 for referenced cross tee details.

5. Maximum system weight was achieved by using two layers of Gypsum Lay-in Panels (GLIP) for Heavy Duty installations and one layer of GLIP with 1 layer of Radar panels for Intermediate Duty installations. Alternative lay-in panels of equivalent plan dimensions (2'x2' or 2'x4' as applicable) may be utilized as long as the system weight does not exceed that shown in Table 3 for the respective system.

6. Systems approved as Intermediate Duty (Seismic Design Category C) were tested with all sides "floating" and a 3/8" gap on all sides.

7. In Seismic design categories D, E, F this product shall be approved by a registered design professional.

PER-16100









PER-16100



Figure 3 - AdvanceSpan Main Tee Splice Plate (ASMTP)





DXT 422/424 Cross Tee Profile

DX 422/424 Cross Tee Profile





Figure 5 - Heavy Duty "Floating" Connection Details



Figure 6 - Heavy Duty "Fixed" Connection Details



Figure 7 - Intermediate Duty "Floating" Connection Details

Product Labeling

Each Grid system shipment assembly, that is covered by this **Product Evaluation Report**, must have a label attached with at least the following information:

- 1. USG Interior, LLC Name and Address
- 2. Product name
- 3. Plant identifier & date code
- 4. Pei ES Information: "See Pei Evaluation Report at p-e-i.com"

Acceptable Evaluation Marks



Product Documentation

A Product Evaluation Service Agreement between *Pei* Evaluation Service[®] and USG Interiors, LLC.

A Follow-up Inspection Service Agreement between Progressive Engineering Inc. and USG Interiors, LLC.

USG Interiors, LLC Quality Control Manual for Donn Brand Suspension Systems and USG Drywall Suspension Systems - Dated: March 20, 2020

SDS for USG Donn® DX®/DXL™ Acoustical Suspension System - Version #3 - Dated: September 15, 2016

USG Donn AdvanceSpan Data Submittal Sheet (AC3324) - Dated:October, 2019

USG Donn AdvanceSpan Installation Guide (AC3325) - Dated: July, 2020