ICC-ES Evaluation Report

ESR-4836

Reissued June 2024

This report also contains:

- CBC Supplement

Subject to renewal June 2025

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DIVISION: 05 00 00—METALS **Section: 05 05 23—Metal Fastenings** **DIVISION: 09 00 00—FINISHES** **Section: 09 22 16.23—Fasteners**	**REPORT HOLDER:** **PHILLIPS FASTENER, LLC** **ADDITIONAL LISTEE:** **TOOL SOURCE WAREHOUSE**	**EVALUATION SUBJECT:** **DURAFAST DRYWALL SCREWS**	

1.0 EVALUATION SCOPE

Compliance with the following codes:

- 2021, 2018, 2015, and 2012 *International Building Code®* (IBC)
- 2021, 2018, 2015, and 2012 *International Residential Code®* (IRC)

Properties evaluated:

- Compliance to the referenced standards

2.0 USES

The Durafast drywall screws described in this report, are used to attach gypsum board materials to cold-formed steel base material.

3.0 DESCRIPTION

3.1 General:

The Durafast drywall screws are self-drilling or self-piercing tapping screws, case hardened from carbon steel conforming to ASTM A510, Grades 1018 to 1022. Tables 1 and 2 provide screw designations, sizes and descriptions of head styles, nominal diameters and lengths, point styles, lengths of load bearing area, and coatings. Screws are supplied in boxes of individual screws. See Figures 1 through 6 for the depictions of the screws described in Sections 3.2 through 3.4, respectively.

Product names corresponding to the report holder and additional listee are presented in the following table. The additional listee product name applies wherever Durafast drywall screws are referenced in this report.

COMPANY NAME	PRODUCT NAME
Phillips Fastener, LLC	Durafast drywall screws
Tool Source Warehouse	USG drywall screws

3.2 PBH Self-drilling Drywall Screws:

The #6 PBH and #8 PBH self-drilling screws comply with the material and performance requirements of ASTM C954. The screws have a concave Phillips Bugle head style with a #2 drilling point and have an electroplated zinc coating, as indicated in Tables 1 and 2, as applicable.

3.3 PBH Self-piercing Coarse Thread Drywall Screws:

The #6 PBH, #8 PBH and #10 PBH self-piercing screws comply with the material and performance requirements of ASTM C1002. The screws have a concave Phillips Bugle head style coarse thread, a sharp point, and have a proprietary phosphate coating, as indicated in Tables 1 and 2, as applicable.

3.4 PBH Self-piercing Fine Thread Drywall Screws:

The #6 PBH and #8 PBH self-piercing screws comply with the material and performance requirements of ASTM C1002. The screws have a concave Phillips Bugle head fine thread single lead, an extra sharp point, and have a proprietary phosphate coating, as indicated in Tables 1 and 2, as applicable.

4.0 DESIGN AND INSTALLATION

4.1 General:

Screw length and point style must be selected on the basis of thickness of the fastened material and thickness of the supporting steel, respectively, based on the load bearing Area (LBA) (see Figures 1 through 6) given in Tables 1 and 2, as applicable.

4.1.1 PBH self-drilling screws in accordance with ASTM C954:

These screws may be used for fastening gypsum board to cold-formed steel framing 0.033 inch to 0.112 inch (0.8 mm to 2.84 mm) thick, in accordance with IBC Section 2506 and IRC Section R702.3.5.1 (2012 IRC Section R702.3.6). They may also be used for attaching gypsum board sheathing to cold-formed steel framing as prescribed in Section B5.2.2.3.4 of AISI S240 and Section E5 and E6 of AISI S400, which are referenced in IBC Section 2211.1 (Section C2.2.3 of AISI S213, which is referenced in 2015 and 2012 IBC Section 2211.6).

4.1.2 PBH self-piercing screws in accordance with ASTM C1002:

These screws may be used for fastening gypsum board to cold-formed steel framing less than 0.033 inch (0.8 mm) thick, in accordance with IBC Section 2506 and IRC Section R702.3.5.1 (2012 IBC Section R702.3.6).

4.2 Installation:

Installation of the Durafast drywall screws must be in accordance with the report holder's published installation instructions and this report. The report holder's published installation instructions must be available at the jobsite at all times during installation.

The screws must be installed perpendicular to the work surface using a variable speed screw driving tool at a maximum speed of 2,500 rpm. The screw must penetrate through the supporting steel with a minimum of three threads protruding past the back side of the supporting steel.

5.0 CONDITIONS OF USE:

The Durafast drywall screws described in this report complies with, or is a suitable alternative to what is specified in, those codes listed in Section 1.0 of this report, subject to the following conditions:

5.1 Fasteners must be installed in accordance with the report holder's published installation instructions and this report. If there is a conflict between the report holder's published installation instructions and this report, this more restrictive requirements govern.

5.2 The rust-inhibitive (corrosion-resistant) coating on the screws must be suitable for the intended use, as determined by the registered design professional.

5.3 The screws are manufactured under a quality-control program with inspections by ICC-ES.

6.0 EVIDENCE SUBMITTED

6.1 Data in accordance with ASTM C954.

6.2 Data in accordance with ASTM C1002.

6.3 Quality documentation in accordance with the Acceptance Criteria for Quality Documentation (AC10).

7.0 IDENTIFICATION

7.1 The ICC-ES mark of conformity, electronic labeling, or the evaluation report number (ICC-ES ESR-4836) along with the name, registered trademark, or registered logo of the report holder and/or listee must be included in the product label.

7.2 In addition, the Durafast drywall screws are marked with the D and F marks on the top of the heads, as shown in Figures 1, 2 and 3. Packages of the drywall screws are labeled with the report holder's name (Phillips Fastener, LLC), and the fastener type and size.

7.3 Alternatively, the USG drywall screws are marked with the U, S, G marks on the top of the heads, as shown in Figures 4, 5 and 6. Packages of the drywall screws are labeled with the additional listee's name (Tool Source Warehouse) and the fastener type and size (See Table 2 and Figures 4, 5 and 6 of the report).

7.4 The report holder's contact information is the following:

PHILLIPS FASTENER, LLC
POST OFFICE BOX 1094
COUNCIL BLUFFS, IOWA 51505
(712) 366-8040
www.phillipsii.com

7.5 The additional listee's contact information is the following:

TOOL SOURCE WAREHOUSE
735 RACO PLACE
LAWRENCEVILLE, GEORGIA 30046
(800) 372-0146
www.tswfast.com

TABLE 1—DURAFAST DRYWALL SCREWS FOR INSTALLATION INTO STEEL BASE MATERIAL

Part Number	Description (Nominal Size - TPI, Head Style)[1]	Thread Type	Nominal Head Diameter (inch)	Nominal Screw Diameter (inch)	Nominal Screw Length (inch)	Point Style	Length of Load Bearing Area[3] (inch)	Coating[2]
41159	#6 - 9 PBH	Coarse	0.325	0.148	1.000	Sharp	0.749	PHOS
41065	#6 - 9 PBH	Coarse	0.325	0.148	1.125	Sharp	0.874	PHOS
41160	#6 - 9 PBH	Coarse	0.325	0.148	1.250	Sharp	0.999	PHOS
41161	#6 - 9 PBH	Coarse	0.325	0.148	1.625	Sharp	1.374	PHOS
41162	#6 - 9 PBH	Coarse	0.325	0.148	2.000	Sharp	1.749	PHOS
41163	#8 - 9 PBH	Coarse	0.325	0.175	2.500	Sharp	2.212	PHOS
41164	#8 - 9 PBH	Coarse	0.325	0.175	3.000	Sharp	2.712	PHOS
90215 Lam	#10 - 8 PBH	Coarse	0.344	0.203	1.500	Sharp	1.199	PHOS
41174	#6 -17 PBH	Fine	0.325	0.138	1.000	Extra Sharp	0.742	PHOS
41578	#6 -17 PBH	Fine	0.325	0.138	1.125	Extra Sharp	0.867	PHOS
41167	#6 -17 PBH	Fine	0.325	0.138	1.250	Extra Sharp	0.992	PHOS
41168	#6 -17 PBH	Fine	0.325	0.138	1.625	Extra Sharp	1.367	PHOS
41169	#6 -17 PBH	Fine	0.325	0.138	2.000	Extra Sharp	1.742	PHOS
41170	#8-15 PBH	Fine	0.325	0.165	2.500	Extra Sharp	2.224	PHOS
41171	#8-15 PBH	Fine	0.325	0.165	3.000	Extra Sharp	2.724	PHOS
41588	#6 -20 PBH	Self-Drill	0.325	0.137	1.125	#2	0.910	ZINC
41262	#6 -20 PBH	Self-Drill	0.325	0.137	1.250	#2	1.035	ZINC
41267	#6 -20 PBH	Self-Drill	0.325	0.137	1.625	#2	1.410	ZINC
41272	#6 -20 PBH	Self-Drill	0.325	0.137	1.875	#2	1.660	ZINC
41277	#8 -18 PBH	Self-Drill	0.325	0.163	2.375	#2	2.130	ZINC
41593	#8 -18 PBH	Self-Drill	0.325	0.163	2.625	#2	2.380	ZINC
41282	#8 -18 PBH	Self-Drill	0.325	0.163	3.000	#2	2.755	ZINC

For **SI:** 1 inch = 25.4 mm.

[1]Head style abbreviation: PBH = Phillips Bugle Head.
[2]Coating abbreviation: ZINC = Zine CR6+ coating; PHOS = phosphate coating (grey).
[3]LBA = Load Bearing Area, See Figures 1 through 3.

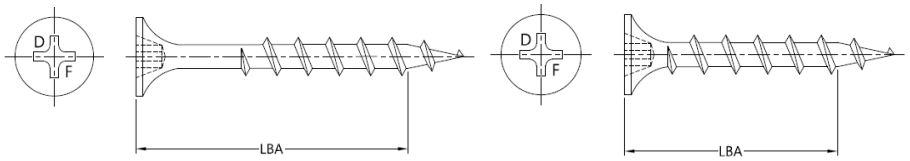

FIGURE 1 – DURAFAST PHILLIPS BUGLE HEAD (PBH) – COARSE THREAD

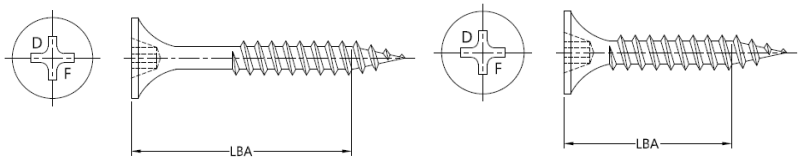

FIGURE 2 – DURAFAST PHILLIPS BUGLE HEAD (PBH) – FINE THREAD

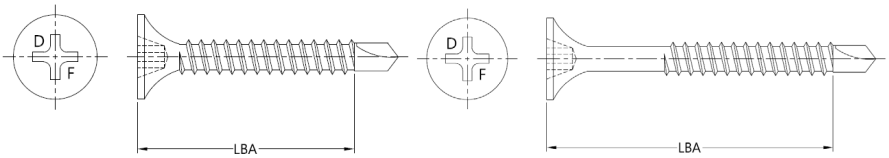

FIGURE 3 – DURAFAST PHILLIPS BUGLE HEAD (PBH) – SELF-DRILLING

TABLE 2—USG DRYWALL SCREWS FOR INSTALLATION INTO STEEL BASE MATERIAL

Part Number	Description (Nominal Size - TPI, Head Style)[1]	Thread Type	Nominal Head Diameter (inch)	Nominal Screw Diameter (inch)	Nominal Screw Length (inch)	Point Style	Length of Load Bearing Area[3] (inch)	Coating[2]
90587	#6 - 3 PBH	Coarse/TENZ[4]	0.325	0.151	1.000	Extra Sharp	0.831	PHOS
90589	#6 - 3 PBH	Coarse/TENZ[4]	0.325	0.151	1.250	Extra Sharp	1.081	PHOS
90591	#6 - 3 PBH	Coarse/TENZ[4]	0.325	0.151	1.625	Extra Sharp	1.456	PHOS
90593	#6 - 3 PBH	Coarse/TENZ[4]	0.325	0.151	2.000	Extra Sharp	1.831	PHOS
90595	#8 - 3.2 PBH	Coarse/TENZ[4]	0.325	0.175	2.500	Extra Sharp	2.252	PHOS
90597	#8 - 3.2 PBH	Coarse/TENZ[4]	0.325	0.175	3.000	Extra Sharp	2.752	PHOS
90599	#6 -17 PBH	Fine	0.325	0.138	1.000	Extra Sharp	0.742	PHOS
90554	#6 -17 PBH	Fine	0.325	0.138	1.125	Extra Sharp	0.867	PHOS
90601	#6 -17 PBH	Fine	0.325	0.138	1.250	Extra Sharp	0.992	PHOS
90603	#6 -17 PBH	Fine	0.325	0.138	1.625	Extra Sharp	1.367	PHOS
90605	#6 -17 PBH	Fine	0.325	0.138	2.000	Extra Sharp	1.742	PHOS
90607	#8-15 PBH	Fine	0.325	0.165	2.500	Extra Sharp	2.224	PHOS
90609	#8-15 PBH	Fine	0.325	0.165	3.000	Extra Sharp	2.724	PHOS
90611	#6 -20 PBH	Self-Drill	0.325	0.137	1.125	#2	0.910	ZINC
90613	#6 -20 PBH	Self-Drill	0.325	0.137	1.250	#2	1.035	ZINC
90615	#6 -20 PBH	Self-Drill	0.325	0.137	1.625	#2	1.410	ZINC
90617	#6 -20 PBH	Self-Drill	0.325	0.137	1.875	#2	1.660	ZINC
90619	#8 -18 PBH	Self-Drill	0.325	0.163	2.375	#2	2.130	ZINC
90567	#8 -18 PBH	Self-Drill	0.325	0.163	2.625	#2	2.380	ZINC
90569	#8 -18 PBH	Self-Drill	0.325	0.163	3.000	#2	2.755	ZINC

For **SI:** 1 inch = 25.4 mm.

[1]Head style abbreviation: PBH = Phillips Bugle Head.
[2]Coating abbreviation: ZINC = Zine CR6+ coating; PHOS = phosphate coating (grey).
[3]LBA = Load Bearing Area. See Figures 4 through 6.
[4]TENZ = TENZ Stair Thread Technology. See Figure 4 for detail.

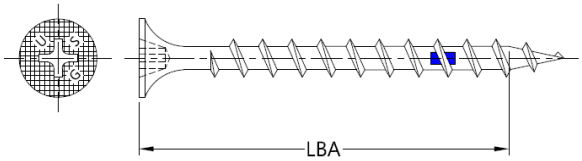

FIGURE 4 – USG PHILLIPS BUGLE HEAD (PBH) – COARSE/TENZ THREAD

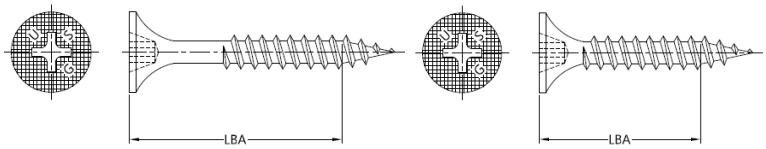

FIGURE 5 – USG PHILLIPS BUGLE HEAD (PBH) – FINE THREAD

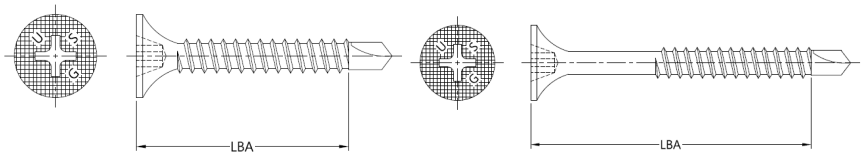

FIGURE 6 – USG PHILLIPS BUGLE HEAD (PBH) – SELF-DRILLING

DIVISION: 05 00 00—METALS
Section: 05 05 23—Metal Fastenings

DIVISION: 09 00 00—FINISHES
Section: 09 22 16.23—Fasteners

REPORT HOLDER:

PHILLIPS FASTENERS, LLC

EVALUATION SUBJECT:

DURAFAST DRYWALL SCREWS

1.0 REPORT PURPOSE AND SCOPE

Purpose:

The purpose of this evaluation report supplement is to indicate that Durafast Drywall Screws, described in ICC-ES evaluation report ESR-4836, have also been evaluated for compliance with the codes noted below.

Applicable code edition*(s)*:

- *2022 California Building Code* (CBC)

For evaluation of applicable Chapters adopted by the California Office of Statewide Health Planning and Development (OSHPD) AKA: California Department of Health Care Access and Information (HCAI) and the Division of State Architect (DSA), see Sections 2.1.1 and 2.1.2 below.

- *2022 California Residential Code* (CRC)

2.0 CONCLUSIONS

2.1 CBC:

The Durafast Drywall Screws, described in Sections 2.0 through 7.0 of the evaluation report ESR-4836, comply with CBC Chapter 25, provided the design and installation are in accordance with the 2021 *International Building Code*® (IBC) provisions noted in the evaluation report and the additional requirements of CBC Chapters 16 and 17, as applicable.

2.1.1 OSHPD:

The applicable OSHPD Sections and Chapters of the CBC are beyond the scope of this supplement.

2.1.2 DSA:

The applicable DSA Sections and Chapters of the CBC are beyond the scope of this supplement.

2.2 CRC:

The Durafast Drywall Screws, described in Sections 2.0 through 7.0 of the evaluation report ESR-4836, comply with CRC Chapter 7, provided the design and installation are in accordance with the 2021 *International Residential Code*® (IRC) provisions noted in the evaluation report and the additional requirements of CRC Chapter 3, as applicable.

This supplement expires concurrently with the evaluation report, reissued June 2024.