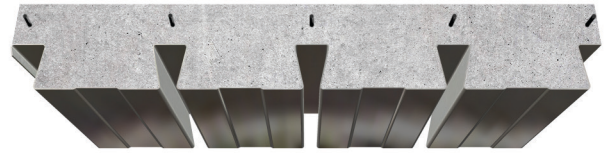


DOVETAIL FORMLOK® DECK-SLAB UL FIRE RATED ASSEMBLIES

USE UL RECOGNIZED 2.0D AND 3.5D DOVETAIL ROOF AND FORMLOK COMPOSITE DECK FOR YOUR FIRE RATED ASSEMBLIES



2.0D FormLok UL Fire Resistance Ratings^{1,2}

| Restrained Assembly Rating (hr) | UL Design No. | Concrete Topping Thickness (in.) based on Unit Weight (pcf) | | | Minimum Reinforcement ³ | Minimum Beam or Joist | Unrestrained Assembly Rating ⁴ (hr) |
|------------------------------------------|----------------------------------|----------------------------------------------------------------|-----|--------------------------------------------|---------------------------------------|-----------------------------|---------------------------------------------------------|
| | | LW | SLW | NW | | | |
| | | 112 | 130 | 147 | | | |
| 1 | D904 or D961 | 2 | --- | 2 ³ / ₄ ⁵ | 6x6-6/6 SWG | W8x28, W10x29 | 3/4 |
| 2 | | 2 1/2 | 3 | 3 1/4 | | | 1 |
| 3 | | 3 3/4 | 4 | 4 3/4 | | | 1 1/2 |
| | | 107-113 | 130 | 147-153 | | | |
| 1 | D917 | 2 | --- | 2 ³ / ₄ ⁵ | 6x6-6/6 SWG | W10x29 | 3/4 |
| 2 | | 2 1/2 | 3 | 3 1/4 | | | |
| 3 | | 3 3/4 | 4 | 4 3/4 | | | |
| | | 107-113 | 130 | 147-153 | | | |
| 1 | D928 | 2 | --- | 2 ³ / ₄ ⁵ | 6x6-6/6 SWG | W10x29 | 3/4 |
| 2 | | 2 1/2 | 3 | 3 1/4 | | | 1 |
| 3 | | 3 3/4 | 4 | 4 3/4 | | | |



3.5D FormLok UL Fire Resistance Ratings^{1,2}

| Restrained Assembly Rating (hr) | UL Design No. | Concrete Topping Thickness (in.) based on Unit Weight (pcf) | | Minimum Reinforcement ³ | Minimum Beam or Joist | Unrestrained Assembly Rating ⁴ (hr) |
|------------------------------------------|---------------------------------------------------|----------------------------------------------------------------|---------|---------------------------------------|-----------------------------|---------------------------------------------------------|
| | | LW | NW | | | |
| | | 107-113 | 147-153 | | | |
| 1 1/2 | D947, D964, or D984 | 2 | 2 | 6x6-W1.4xW1.4 | W8x28, W10x29 | 3/4 |
| 2 | | 2 | 2 1/4 | | | |
| 3 | | 2 1/4 | 3 3/4 | | | |

Notes:

1. All DoveTail FormLok composite deck assemblies are subject to an upper live load limit of 130 psf.
2. Steel deck is exposed and does not require SFRM. See the UL design for thickness of SFRM on beams.
3. Dramix® fibers may be used in UL or ULC fire rated assemblies in lieu of WWR. See UL file R13907 for additional information.
4. See UL "Fire Resistance Directory" for span limitations and construction details.
5. Restrained Assembly Rating is 1 1/2 hr with listed NW concrete thickness.

DOVETAIL ROOF DECK UL FIRE RATED ASSEMBLIES

2.0D and 3.5D UL Fire Resistance Ratings

| Restrained Assembly Rating (hr.) | UL Design No. | Unrestrained Assembly Rating (hr.) | Support Type | Fire Protection | Deck Type | |
|----------------------------------------|---------------------|------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------|---------------------|-----------|------|
| | | | | | 2.0D | 3.5D |
| 1, 1½, or 2 | P908 | 0, 1½, or 2 | Beams: W6x16, W8x10, W8x18 or W8x28 min., Joists: 10K1, 12J4, 14K4, or 16K3 min., Joist Girders: 20 in. min. depth and 13 lb/lin ft min. weight | Insulating Concrete | ✓ | ✓ |
| 1, 1½, or 2 | P921 | 0 | Beams: W6x16 or W8x10, Joists: 12K5 or heavier may be used as secondary support, Joist Girders: 20 in. min. depth and 13 lb/lin ft min. weight | Insulating Concrete | ✓ | ✓ |
| 1, 1½, or 2 | P937 | 0 | Beams: W8x28 min., Joists: 10K1 min. | Insulating Concrete | ✓ | ✓ |
| 1, 1½, or 2 | P938 | 0, 1½, or 2 | Beams: W6x16, W8x10, W8x18 or W8x28 min., Joists: 10K1, 12J4, 14K4, or 16K3 min., Joist Girders: 20 in. min. depth and 13 lb/lin ft min. weight | Insulating Concrete | ✓ | ✓ |

DOVETAIL DECK SOLUTIONS



Catalog Solutions

2.0D DoveTail FormLok Deck
3.5D DoveTail FormLok Deck
DoveTail Hanging Solutions
DoveTail Acoustic Solutions
DoveTail Roof Deck



Web Based Solutions

Calculators available at www.dovetaildeck.com
Maximum Unshored Span
Composite Deck-Slab Strength
Composite Deck-Slab Diaphragm Strength
Roof Deck Diaphragm Strength
Steel Deck Roving Load

ARCAT® Specifications for DoveTail Roof and FormLok Composite Decks are available for free download on Arcat at: www.arcat.com

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