

## ARLON<sup>®</sup> High-Performance Silicone Materials for Hose, Duct, and Composite Applications in Aerospace and Defense

Product designers and engineers face many challenges and opportunities when developing applications for aerospace and defense industry.

From optimizing weight and maximizing durability, to meeting stringent flame and safety requirements, Rogers partners with customers to find and design the right material for their application needs.



Comprised of a variety of high-performance cured and uncured silicones, ARLON<sup>®</sup> substrates are engineered for premium bond strength, durability, and fire resistance. These key properties make them an ideal solution for mission-critical applications such as aircraft environmental control system ducting, vehicle exhaust extraction, high temperature air transfer systems and more.

They are available in range of constructions, colors, sizes, roll lengths, and widths. ARLON substrates can also be customized to a customer's exact specifications.

### ADVANTAGES



#### Lightweight and Thin Profile

Precision calendering capabilities produce a lightweight silicone rubber profile weighing as low as 5.6 oz/yd<sup>2</sup> (190 g/m<sup>2</sup>), optimizing space and weight constraints



#### Extreme Temperature Stability

Material maintains high performance in an extreme range of temperatures from -60 to 200 °C.



#### Flame Resistance

Meets stringent flammability ratings including FAR 25.856. and FAR 25.853



#### Strength and Durability

The fabric-reinforced composite is strong and durable enough to withstand the most demanding duct and hose applications



#### Safety

Materials are free of halogens and produce low smoke and toxicity when burned

# ARLON® High-Performance Silicone Materials for Hose, Duct, and Composite Applications in Aerospace and Defense

## Hose, Duct, and Composites Capabilities Overview

As the world leader of high-quality, customizable silicone solutions, Rogers Corporation offers a full range of innovative manufacturing technologies paired with unparalleled engineering expertise.

This enables the quick customization of material solutions to meet specific application needs.

Visit the ARLON® Product Properties Guide for the full ARLON material portfolio: <https://tools.rogerscorp.com/ems/aron/properties/index.aspx>

Rubber Compound Options	Specifications	Colors
ARLON 36 Rubber	FAR 25.856 compliant rubber grade	Standard colors of red and gray. Custom colors available.
ARLON 16 Rubber	A-A-59588 CL 2A/2B fire resistance rubber grade	
Various non-standard and custom rubber formulations available.		

Fiberglass Options	Style	Thickness (mil)
ARLON 48 Glass	Style 1080 glass	~3
ARLON 51 Glass	Style 7628 glass	~8
ARLON 44 Glass	Style 1165 glass	~5
Mil-Y-1140 certified fiberglass is available. Other glass styles and fabrics available.		

Construction Codes				
	1	2	3	6
Side 1	Uncured	Cured	Cured	Cured
Reinforcement Fabric				
Side 2	Uncured	None	Cured	Uncured

Product Examples	Rubber Compound	Glass Style	Construction	Total Thickness (mil)
48361X007	ARLON 36, FAR 25.856 compliant	Style 1080 fiberglass (~3 mil)	"1", 2 mil uncured rubber on both sides of glass	7
48366011	ARLON 36, FAR 25.856 compliant	Style 1080 fiberglass (~3 mil)	"6", 4 mil uncured rubber on one sides of glass, 4 mil cured rubber on other side	11
51366015	ARLON 36, FAR 25.856 compliant	Style 7628 fiberglass (~8 mil)	"6", 5.5 mil uncured rubber on one sides of glass, 2.5 mil cured rubber on other side	15

To request a material sample, please contact the Rogers Solutions Center at [solutions@rogerscorp.com](mailto:solutions@rogerscorp.com)