

## Marco Compound L1011

### 80 Durometer, Black, FDA and USP Class VI Compliant TFE/P (Aflas®)

### Technical Datasheet

**General Description:**

TFE/P (Aflas®) compounds exhibit excellent chemical, heat and steam resistance. They provide superior performance over FKM compounds in water, steam and virtually all caustics making them ideal for pharmaceutical and biotechnology manufacturers that use steam and caustic chemicals in the sterilization process. Marco compound L1011 provides excellent performance in SIP (steam in place), CIP (clean in place) and WFI (water for injection) applications. This compound is also FDA and USP Class VI compliant. Please contact [engineering@marcorubber.com](mailto:engineering@marcorubber.com) for assistance in selecting a specialized compound when increased resistance to temperature, chemicals, or physical properties is required.

**Features:**

- FDA and USP Class VI Compliant
- Excellent steam and caustic resistance up to 400° F (204° C)
- Resistant to acids and bases
- Amines and H<sub>2</sub>S resistance
- Ozone resistance
- Resistant to highly reactive organic and inorganic chemicals
- Excellent volume resistivity (greater than 10<sup>16</sup>Ω cm)
- Radiation resistance up to 200 MRad of gamma-ray radiation
- Resistant to highly reactive organic and inorganic chemicals

**Limitations:**

- Aromatic Fuels
- Ketones
- Carbon tetrachloride
- Chlorinated Hydrocarbons
- Organic Refrigerants

**Service Temperature:**

15 to 450°F (-10 to 230°C)

### TYPICAL PHYSICAL PROPERTIES

ORIGINAL PROPERTIES	Typical Test Reports
Hardness, Shore A, ASTM D2240 (Z1=75+/-5)	79
Color	Black
Tensile Strength, psi, ASTM D1414	2600
Ultimate Elongation, %, ASTM D1414	170
Specific Gravity	1.65
Compression Set (70 hrs. @ 392 °F), %, ASTM D395	30

This information is to the best of our knowledge accurate and reliable. However, Marco Rubber makes no warranty, expressed or implied, that parts manufactured from this material will perform satisfactorily in the customer's application. It's the customer's responsibility to evaluate parts prior to use.

## Compatibility Guide for Common Chemicals Used in CIP Processes

	EPDM	Buna-N	Silicone	FKM	FEPM (Aflas)	PTFE	Markez
Acetone	1	4	4	4	4	1	1
Ammonia	1	2	2	4	4	1	1
Hydrochloric Acid	3	4	4	1	1	1	1
Hydrofluoric Acid	3	4	4	3	2	1	1
Hydrogen Peroxide	4	2	2	2	1	1	1
Isopropyl Alcohol	1	2	1	1	1	1	1
Nitric Acid	2	4	2	1	2	1	1
Phosphoric Acid	1	2	2	1	1	1	1
Sodium Hydroxide	1	2	2	2	1	1	1
Sodium Hypochlorite	2	2	2	1	1	1	1
Sulfuric Acid	2	3	4	1	1	1	1
Steam to 400°F (204°C)	3	4	4	4	1	3	3

1 – Excellent 2 – Good 3 – Limited 4 – Not Recommended

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