EBAD
Ensign-Bickford Aerospace & Defense

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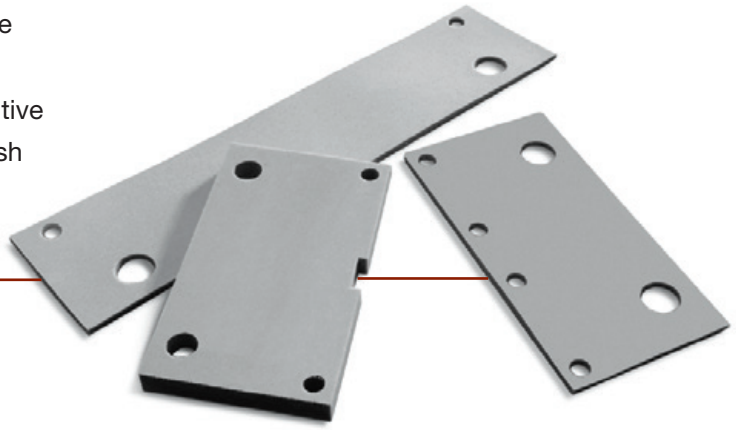
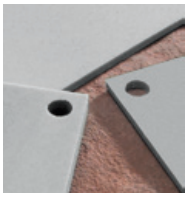
LF-2XA Explosive

PRODUCT TECHNICAL DATA SHEET

DESCRIPTION:

LF-2XA is a sheet explosive specifically formulated for optimal performance in Reactive Armor Systems for combat vehicles. It is virtually insensitive to small arms bullet impact and fire but designed to react to high-velocity shaped charge jet stimuli. LF-2XA has passed the full MIL-STD-2105 Insensitive Munition testing and has been formulated to self-extinguish once set aflame. It is type classified for use on various United States Military combat vehicle platforms.





APPLICATION:

LF-2XA meets the unique performance characteristics of Reactive Armor applications. Through system-specific optimization, LF-2XA continues to provide the preferred performance and properties required by the United States Military. LF-2XA is included in both legacy and future combat systems. Since it is a Plastic Bonded Explosive, it is waterproof and can be extruded and cut into most any design configuration. LF-2XA is configured to match the complex geometries of unique Reactive Armor applications while maintaining very exacting dimensional tolerances.

PROPERTIES:

- Explosive Concentration (%): 49–54
- Density (g/cc): 1.73–1.76
- VOD (m/s): 6,850–7,300
- Minimum Propagation Thickness: 0.072″ (max.)
- Flyer Plate Impact Sensitivity:
  100% NO GO <650 m/s min, 100% GO >1,250 m/s
- NO GO <633 m/s min. 100% GO >1,250 m/s
- Hardness (Shore A): 56–80
- Extremely High Surface Ignition Point:
  No Ignition at 1472° F (800°C)
- Flyer Plate Impact Sensitivity Tested at Ambient and –40° F (-40°C)

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MSDS No:
MSDSV10132/1

EX-9512032
Explosive, Blasting, Type D, UN0084
1.1D

LF-2XA Explosive

SPECIFICATIONS:

PART NUMBER	THICKNESS (NOMINAL)		ROLLS PER BOX	WEIGHT PER ROLL (NOMINAL)		ROLL LENGTH (REFERENCE)*	
	in	mm		lb	kg	ft	m
D10665CA083-1	0.083	2.1	2	20	9.1	31.0	9.4
D10665CA125-1	0.125	3.2	2	20	9.1	20.6	6.2
D10665CA166-1	0.166	4.2	2	20	9.1	15.5	4.7
D10665CA208-1	0.208	5.3	2	20	9.1	12.4	3.7
D10665CA250-1	0.250	6.4	2	20	9.1	10.3	3.1
D10665CA291-1	0.291	7.4	2	20	9.1	8.8	2.7
D10665CA333-1	0.333	8.5	2	20	9.1	7.7	2.3

OPERATION:

The combination of low flammability and low impact sensitivity provides greater user safety and improved performance. Use of LF-2XA not only reduces fire hazards but also eliminates the possibility of unwanted detonations. The low sensitivity characteristic greatly reduces the possibility of sympathetic detonations allowing the Reactive Armor designer to utilize thinner, lighter separators reducing parasitic weight, increasing the areas of coverage, and allowing for truly practical multi-hit designs. Reduced flammability eliminates the ignition of the explosive by small or medium caliber threats that would otherwise be defeated by the base armor.

CONSTRUCTION:

LF-2XA is available in sheet forms that are highly flexible and easily cut to size while maintaining sufficient mechanical strength to permit considerable handling before armor assembly. EBAD can cut the LF-2XA into any shape. LF-2XA is water and fuel resistant, stable under a variety of conditions, and functional over a broad temperature range (six months at 160° F (71°C) w/ no change in properties). Similar results have been observed after underwater storage for six months. The explosive component of LF-2XA is Ultrafine RDX produced by an EBAD proprietary direct recrystallization method. The unique crystal size and shape provides LF-2XA with its excellent impact properties and ballistic performance.

Attention: The information and recommendations described in this brochure cannot possibly cover every application of the products or variation of conditions under which the products are used. The recommendations herein are based on the manufacturer's experience, research and testing. They are believed to be accurate, but no warranties are made, express or implied. In addition, the specifications contained herein are all nominal which represent our current production. The products described may be subject to change. Please feel free to contact Ensign-Bickford Aerospace & Defense Company for verification. No Warranties or Liabilities: THE PRODUCTS DESCRIBED HEREIN are sold "AS IS" and without any warranty or guaranty, express, or implied, arising by law or otherwise including without limitation any warranty of merchantability or fitness for a particular purpose. Buyer and user agree further to release and discharge seller from any and all liabilities whatsoever arising out of the purchase or use of any product described herein whether or not such liability is occasioned by seller's negligence or based upon strict products liability or upon principles of indemnity or contribution. **Content©2016 Ensign-Bickford Aerospace & Defense Company, Simsbury, CT 06070, U.S.A.**

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