Naftoseal® MC-790 Class B

CAVITY SEALANT

1 Description

Naftoseal® MC-790 Class B is a two-component, manganese-dioxide cured polysulfide polymer system with low density. It was designed for usage as filler for major cavities in the airframe structure. It has outstanding resistance to aviation gasoline and jet fuel, as well as resistance to various chemicals and petroleum products used in the aircraft industry. In addition, it was developed for a service temperature between -55 °C (-67 °F) to +130 °C (+ 266 °F) whereas it withstands temperature of +182 °C (+360 °F) for a short period of time.

Naftoseal® MC-790 Class B maintains its flexibility and bond strength on most metal substrates like aluminum, stainless steel, steel, titanium, composite and many other coatings under extremes of temperature, weathering and stress.

Naftoseal® MC-790 Class B can be mixed using MCI-Mixer.

The mixed compound is a thixotropic paste easily applied by extrusion, injection gun or spatula. It has excellent tooling properties.

The curing time may be reduced considerably by increasing the temperature (up to 60 °C or 140 °F max).

2 Field of application

- Sealing of major cavities within the airframe structure

3 Specifications

AIMS 04-05-016

Application life and cure time at 23°C (73°F) / 50% r.H.			
Type	**Min. Application Time**	**Tack Free Time**	**Time to Shore A 30**
Naftoseal® MC-790 B-1/2	30 minutes	≤ 4 hours	≤ 8 hours
Naftoseal® MC-790 B-1	1,0 hours	≤ 7 hours	≤ 10 hours
Naftoseal® MC-790 B-2	2,0 hours	≤ 10 hours	≤ 10 hours
Naftoseal® MC-790 B-4	4,0 hours	≤ 16 hours	≤ 24 hours

Typical Physical and Application Properties		
	Base	**Hardener**
Colour	Grey	Brown
Viscosity at 23 °C, Brookfield RV, Spindel 7	1500 ± 500 Pa.s (2 rpm)	400 Pa.s max. (10 rpm)
Mixing ratio by weight:	100	10
Mixing ratio by volume	100	6,2
Non-volatile content	≥ 97%	

Typical Values of MC-790 Class B after 14 days at 23 °C (73 °F) / 50 % r.h.	
Colour	Grey
Specific gravitiy	1,2 g/ccm
Ultimate Shore A Hardness:	Ca. 45
Service temperature	-55 °C (-67 °F)/ +130 °C (+266 °F) (short term + 182 °C or 360 °F)
Tensile Strength	≥ 1,2 N/mm²
Elongation	≥ 150 %
Peel Strength on Aluminum, Epoxy Primer, Top Coat and other Substrates	≥ 90 N/25mm

Mixing Instruction for Techkits			
Naftoseal® MC-790 B	Motor revolution in rpm	Strokes up and down	Mixing Time
	110 ± 10	90	2 Min ± 1 Min

4 Surface preparation

To obtain good adhesion, clean surfaces with appropriate cleaners (e.g. Chemetall's Ardrox® products like Ardrox® 5529 / 5575) to remove dirt, grease and processing oils just prior to sealant application. Use lint-free rags or paper towels that are free of oil. Always pour cleaner on the cloth to avoid contamination of the cleaner supply. Clean one small area at a time, quickly wiping it dry before the cleaner's solvent evaporates to prevent redeposition of oil, wax or other contaminants. Usually, in the case of most epoxy resin primers, surfaces need not be additionally prepared with an adhesion promoter to improve adhesion. PUR and EP topcoats as well as composite components should be pre-treated by the Naftoseal® MC-115 Adhesion Promoter.

5 Packaging

Designation	Base Compound Content/Pierce	No. / Case
Techkit 130	137 ccm	24

6 Storage

The shelf life of Naftoseal® MC-790 Class B is 6 months from date of manufacture, when stored at temperatures below 26 °C in its original unopened container.

7 Health and safety precautions

See Safety Data Sheet.

The above details have been compiled to the best of our knowledge on the basis of tests and research work and with regard to the current state of our practical experience. This technical product information is non-binding. No liabilities or guarantees deriving from or in connection with this leaflet can be imputed to us. Statements relating to possible uses of the product do not constitute a guarantee that such uses are appropriate in a particular user's case or that such uses do not infringe the patents or proprietary rights of any third party. The reproduction of any or all of the information contained in this leaflet is expressly forbidden without Chemetall's prior written consent.

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