

**CERTIFICATES FOR LOW-FLAME SPREAD CHARACTERISTICS
(type approvals)**

1883 B

a ten sheet issue

August 2006
revision of July 2006

PRODUCT NAME	a- INSTITUTE b- DATE OF REPORT/REF. c- VALIDITY d- PRODUCT SHEET/REF.	CONCLUSION
1 x Sigma CM miocoat (SigmaCover 435) 100 µm	a- Det Norske Veritas b- 04-05-2004, MED-B-2326 c- 04-05-2009 d- 7465, 7466	Product is found to comply with the requirements in the following Regulations/Standards: Annex A.1, item No. A.1/3.18b and Annex B, Module B in the directive. SOLAS 74 as amended, Reg. II-2/3.29, II-2/3.40.5, II-2/5.3.2.4, II-2/6.2, & X/3, 2000 HSC Code 7.4.3.4, 7.4.3.6 and IMO FTP Code.
1 x Sigma CM coating (SigmaCover 456) 100 µm	a- Warrington fire research b- 24-03-2004, Warres no. 137371 c- -- d- 7465, 7466	The coating system meets all the criteria given in the IMO document and can therefore be considered to have low flame spread in compliance with the International Convention for the Safety of Life at Sea 1974.
1 x Sigma CM miocoat (SigmaCover 435) 80 µm	a- Det Norske Veritas b- 06-06-2002, MED-B-1599 c- 06-06-2007 d- 7465, 7240	Product is found to comply with the requirements in the following Regulations/Standards: Annex A.1, item No. A.1/3.1.8 and Annex B, Module B in the directive. SOLAS 74, Reg. II-2/3.29, II-2/3.40.4, II-2/3.40.5, II-2/5.3.1.1, II-2/5.3.2.4, II-2/6.2, II-2/9.7.1.1.1, II-2/9.7.4.4.3.1 & X/3, 2000 HSC Code 7.4.3.4, 7.4.3.5, 7.4.3.6 and IMO FTP Code.
1 x Sigmarine Enamel (Sigmarine 49) 50 µm	a- Warrington fire research b- 27-02-2002, Warres no. 123045 c- -- d- 7465, 7240	The coating system meets the requirement for low flame spread in compliance with the regulations II-2/3.8, II-2/34 and II-2/49 of the International Convention for the Safety of Life at Sea, (SOLAS), 1974.

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1 x SigmaCover 280 (Sigma Universal primer) 50 µm	a- Det Norske Veritas b- 07-06-2005, MED-B-3165 c- 07-06-2010 d- 7417, 7466, 7528 (7537)	Product is found to comply with the requirements in the following Regulations/Standards: Annex A.1, item No. A.1/3.18b and Annex B, Module B in the directive.
1 x SigmaCover 456 (Sigma CM coating) 75 µm		SOLAS 74 as amended. Reg. II-2/3.29, II-2/3.40.5, II-2/5.3.2.4, II-2/6.2, & X/3,
1 x Sigmadur gloss (SigmaDur 550) 50 µm		2000 HSC Code 7.4.3.4, 7.4.3.6 and IMO FTP Code.
1 x Sigma Universal primer (SigmaCover 280) 50 µm	a- Warrington fire research b- 31-01-2000, Warres no. 112083 c- -- d- 7417, 7466, 7528 (7537)	The coating system meets all the criteria given in the IMO document IMO resolution A653 (16) as amended by resolution MSC 61 (67) and can therefore be considered to have low flame spread in compliance with the International Convention for the Safety of Life at Sea, 1974.
1 x Sigma CM coating (SigmaCover 456) 75 µm		
1 x Sigmadur gloss (SigmaDur 550) 50 µm		
2 x SigmaCover 630 (Sigma Multimastic) 2 x100 µm	a- Det Norske Veritas b- 07-06-2005, MED-B-3163 c- 07-06-2010 d- 7430	Product is found to comply with the requirements in the following Regulations/Standards: Annex A.1, item No. A.1/3.18b and Annex B, Module B in the directive.
		SOLAS 74 as amended. Reg. II-2/3.29, II-2/3.40.5, II-2/5.3.2.4, II-2/6.2, & X/3, 2000 HSC Code 7.4.3.4, 7.4.3.6 and IMO FTP Code.
2 x Sigma Multimastic (SigmaCover 630) 2 x100 µm	a- Warrington fire research b- 04-05-2000, Warres no. 113500 c- -- d- 7430	The coating system meets all the criteria given in the IMO document IMO resolution A653 (16) as amended by resolution MSC 61 (67) and can therefore be considered to have low flame spread in compliance with the International Convention for the Safety of Life at Sea, 1974.

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PRODUCT NAME	a- INSTITUTE b- DATE OF REPORT/REF. c- VALIDITY d- PRODUCT SHEET/REF.	CONCLUSION
1 x SigmaCover 630 (Sigma Multimastic) 150 µm	a- Det Norske Veritas b- 07-06-2005, MED-B-3162 c- 07-06-2010	Product is found to comply with the requirements in the following Regulations/Standards: Annex A.1, item No. A.1/3.18b and Annex B, Module B in the directive. SOLAS 74 as amended. Reg. II-2/3.29, II-2/3.40.5, II-2/5.3.2.4, II-2/6.2, & X/3, 2000 HSC Code 7.4.3.4, 7.4.3.6 and IMO FTP Code.
1 x SigmaCover 456 (Sigma CM coating) 100 µm	d- 7430, 7466	
1 x Sigma Multimastic (SigmaCover 630) 150 µm	a- Warrington fire research b- 24-02-1997, Warres no. 70637 c- --	The coating system meets all the criteria given in the IMO document IMO resolution A653 (16) as amended by resolution MSC 61 (67) and can therefore be considered to have low flame spread in compliance with the International Convention for the Safety of Life at Sea, 1974.
1 x Sigma CM coating (SigmaCover 456) 100 µm	d- 7430, 7466	
1 x SigmaCover 630 (Sigma Multimastic) 150 µm	a- Det Norske Veritas b- 02-02-2006, MED-B-3503 c- 02-02-2011	Product is found to comply with the requirements in the following Regulations/Standards: Annex A.1, item No. A.1/3.18b and Annex B, Module B in the directive. SOLAS 74 as amended, Reg. II-2/3.29, II-2/3.40.5, II-2/5.3.2.4, II-2/6.2, & X/3, 2000 HSC Code 7.4.3.4, 7.4.3.6 and IMO FTP Code.
1 x Sigmadur gloss white 50 µm	d- 7430, 7528	
1 x SigmaCover 630 (Sigma Multimastic) grey 150 µm	a- Warrington fire research b- 15-12-2005, Warres no. 150219 c- --	The coating system meets all the criteria given in the IMO document and can therefore be considered to have low flame spread in compliance with the International Convention for the Safety of Life at Sea, 1974
1 x Sigmadur gloss white 50 µm	d- 7430, 7528	

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1 x SigmaCover 630 (Sigma Multimastic) grey 150 µm 1 x Sigmarine 48 (Sigmarine BTD) buff 35 µm	a- Det Norske Veritas b- 02-02-2006, MED-B-3501 c- 02-02-2011 d- 7430, 7238	Product is found to comply with the requirements in the following Regulations/Standards: Annex A.1, item No. A.1/3.18b and Annex B, Module B in the directive. SOLAS 74 as amended, Reg. II-2/3.29, II-2/3.40.5, II-2/5.3.2.4, II-2/6.2, & X/3, 2000 HSC Code 7.4.3.4, 7.4.3.6 and IMO FTP Code.
1 x SigmaCover 630 (Sigma Multimastic) grey 150 µm 1 x Sigmarine 48 (Sigmarine BTD) buff 35 µm	a- Warrington fire research b- 15-12-2005, Warres no. 150220 c- -- d- 7430, 7238	The coating system meets all the criteria given in the IMO document and can therefore be considered to have low flame spread in compliance with the International Convention for the Safety of Life at Sea, 1974
1 x SigmaPrime 700 redbrown 75 µm 1 x Sigmarine 48 (Sigmarine BTD) grey 35 µm	a- Det Norske Veritas b- 06-08-2006, MED-B-3698 c- 06-08-2011 d- 7930, 7238	Product is found to comply with the requirements in the following Regulations/Standards: Annex A.1, item No. A.1/3.18b and Annex B, Module B in the Directive. SOLAS 74 as amended, Reg. II-2/3.29, II-2/3.40.5, II-2/5.3.2.4, II-2/6.2, & X/3, 2000 HSC Code 7.4.3.4, 7.4.3.6 and IMO FTP Code.
1 x SigmaPrime 700 redbrown 75 µm 1x Sigmarine 48 (Sigmarine BTD) grey 35 µm	a- Warrington fire research b- 27-02-2005, Warres no. 151547 c- -- d- 7930, 7238	The specimens meets all the criteria given in the IMO document and can therefore be considered to have low flame spread in compliance with the International Convention for the Safety of Life at Sea, 1974

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2 x Sigmarine 24 (Sigmarine primer ZP) 2 x 40 µm	a- Det Norske Veritas	b- 07-06-2005, MED-B-3157	c- 07-06-2010	d- 7135, 7238	Product is found to comply with the requirements in the following Regulations/Standards: Annex A.1, item No. A.1/3.18b and Annex B, Module B in the directive. SOLAS 74 as amended. Reg. II-2/3.29, II-2/3.40.5, II-2/5.3.2.4, II-2/6.2, & X/3, 2000 HSC Code 7.4.3.4, 7.4.3.6 and IMO FTP Code.
2 x Sigmarine 48 (Sigmarine BTM) 2 x 40 µm	a- Registro Italiano Navale (R.I.N.A.)	b- 08-03-2006, MED049706CS/03	c- 07-01-2011	d- 7135, 7238	Suitable for ships use as for rules section F items 1.4/1.8 and solas convention '74(83) cap.II-2 Suitable for bulkhead and ceiling finish materials.
2 x Sigmarine primer ZP (Sigmarine 24) 2 x 40 µm	a- Det Norske Veritas	b- 07-06-2005, MED-B-3158	c- 07-06-2010	d- 7135, 7240	Product is found to comply with the requirements in the following Regulations/Standards: Annex A.1, item No. A.1/3.18b and Annex B, Module B in the directive. SOLAS 74 as amended. Reg. II-2/3.29, II-2/3.40.5, II-2/5.3.2.4, II-2/6.2, & X/3, 2000 HSC Code 7.4.3.4, 7.4.3.6 and IMO FTP Code.
2 x Sigmarine 49 (Sigmarine Enamel) 2 x 40 µm	a- Registro Italiano Navale (R.I.N.A.)	b- 08-03-2006, MED049706CS/02	c- 07-01-2011	d- 7135, 7240	Suitable for ships use as for rules section F items 1.4/1.8 and solas convention '74(83) cap.II-2 Suitable for bulkhead and ceiling finish materials.
2 x Sigma AquaCover 25 (Sigmacrylic primer) 40 µm per coat	a- Registro Italiano Navale (R.I.N.A.)	b- 08-03-2006, MED049706CS/01	c- 07-01-2011	d- 7150, 7250	found to be in compliance with the Fire Protection requirements of Marine Equipment Directive (MED) 96/98/EC as modified by Directive 2002/75/EC
2 x Sigma AquaCover 45 (Sigmacrylic finish) 40 µm per coat					

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PRODUCT NAME	a- INSTITUTE b- DATE OF REPORT/REF. c- VALIDITY d- PRODUCT SHEET/REF.	CONCLUSION
1 x Sigmarine 28 (Sigmarine multiprimer)	a- Registro Italiano Navale (R.I.N.A.)	found to be in compliance with the Fire Protection requirements of Marine Equipment Directive (MED) 96/98/EC as modified by Directive 2002/75/EC
1 x Sigma Vikote 56 (Sigma topacryl finish)	b- 19-04-2006, MED108106CS c- 18-04-2011 d- 7117, 7355	
1 x Sigmarine 28 (Sigmarine Multiprimer) 75 µm	a- Det Norske Veritas b- 07-06-2005, MED-B-3160 c- 07-06-2010 d- 7117	Product is found to comply with the requirements in the following Regulations/Standards: Annex A.1, item No. A.1/3.18b and Annex B, Module B in the directive. SOLAS 74 as amended. Reg. II-2/3.29, II-2/3.40.5, II-2/5.3.2.4, II-2/6.2, & X/3, 2000 HSC Code 7.4.3.4, 7.4.3.6 and IMO FTP Code.
1 x Sigmarine Multiprimer (Sigmarine 28) 75 µm	a- Warrington fire research b- 24-02-1997, Warres no. 70638 c- -- d- 7117	The coating system meets all the criteria given in the IMO document IMO resolution A653 (16) as amended by resolution MSC 61 (67) and can therefore be considered to have low flame spread in compliance with the International Convention for the Safety of Life at Sea, 1974.
1 x Sigmarine 28 (Sigmarine Multiprimer) 50 µm	a- Det Norske Veritas b- 07-06-2005, MED-B-3164 c- 07-06-2010 d- 7117, 7213, 7240	Product is found to comply with the requirements in the following Regulations/Standards: Annex A.1, item No. A.1/3.18b and Annex B, Module B in the directive. SOLAS 74 as amended. Reg. II-2/3.29, II-2/3.40.5, II-2/5.3.2.4, II-2/6.2, & X/3, 2000 HSC Code 7.4.3.4, 7.4.3.6 and IMO FTP Code.
1 x Sigmarine 40 (Sigmarine Undercoat) 50 µm		
1 x Sigmarine 49 (Sigmarine Enamel) 35 µm		

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1 x Sigmarine Multiprimer (Sigmarine 28) 50 µm	a- Warrington fire research b- 31-01-2000, Warres no. 112082 c- -- d- 7117, 7213, 7240	The coating system meets all the criteria given in the IMO document IMO resolution A653 (16) as amended by resolution MSC 61 (67) and can therefore be considered to have low flame spread in compliance with the International Convention for the Safety of Life at Sea, 1974.
1 x Sigmarine Undercoat (Sigmarine 40) 50 µm		
1 x Sigmarine Enamel (Sigmarine 49) 35 µm		
1 or 2 x Sigmarine 28 (Sigmarine Multiprimer) total 100 µm	a- Det Norske Veritas b- 07-06-2005, MED-B-3166 c- 07-06-2010 d- 7117, 7238	Product is found to comply with the requirements in the following Regulations/Standards: Annex A.1, item No. A.1/3.18b and Annex B, Module B in the directive. SOLAS 74 as amended. Reg. II-2/3.29, II-2/3.40.5, II-2/5.3.2.4, II-2/6.2, & X/3, 2000 HSC Code 7.4.3.4, 7.4.3.6 and IMO FTP Code.
1 x Sigmarine 48 (Sigmarine BTD) 40 µm		
1 or 2 x Sigmarine Multiprimer (Sigmarine 28) total 100 µm	a- Warrington fire research b- 18-11-2002, Warres no. 128084 addendum to Warres no. 112081 c- -- d- 7117, 7238	The coating system meets all the criteria given in the IMO document IMO resolution A653 (16) as amended by resolution MSC 61 (67) and can therefore be considered to have low flame spread in compliance with the International Convention for the Safety of Life at Sea, 1974.
1 x Sigmarine BTD (Sigmarine 48) 40 µm		
2 x Sigmarine 28 (Sigmarine Multiprimer) 50 µm	a- Det Norske Veritas b- 07-06-2005, MED-B-3159 c- 07-06-2010 d- 7117, 7240	Product is found to comply with the requirements in the following Regulations/Standards: Annex A.1, item No. A.1/3.18b and Annex B, Module B in the directive. SOLAS 74 as amended. Reg. II-2/3.29, II-2/3.40.5, II-2/5.3.2.4, II-2/6.2, & X/3, 2000 HSC Code 7.4.3.4, 7.4.3.6 and IMO FTP Code.
1 x Sigmarine 49 (Sigmarine Enamel) 40 µm		

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2 x Sigmarine Multiprimer (Sigmarine 28) 50 µm 1 x Sigmarine Enamel (Sigmarine 49) 40 µm	a- Warrington fire research b- 31-01-2000, Warres no. 112080 c- -- d- 7117, 7240	The coating system meets all the criteria given in the IMO document IMO resolution A653 (16) as amended by resolution MSC 61 (67) and can therefore be considered to have low flame spread in compliance with the International Convention for the Safety of Life at Sea, 1974.
2 x Sigmatex total 82 µm	a- Det Norske Veritas b- 07-06-2005, MED-B-3161 c- 07-06-2010 d- 8215	Product is found to comply with the requirements in the following Regulations/Standards: Annex A.1, item No. A.1/3.18b and Annex B, Module B in the directive. SOLAS 74 as amended. Reg. II-2/3.29, II-2/3.40.5, II-2/5.3.2.4, II-2/6.2, & X/3, 2000 HSC Code 7.4.3.4, 7.4.3.6 and IMO FTP Code.
2 x Sigmatex total 82 µm	a- Brandversuchshaus Hamburg TÜV nord b- 08-11-1999, SN99.80.1 c- -- d- 8215	The coating system meets all the criteria given in the IMO document IMO resolution A653 (16) as amended by resolution MSC 61 (67) and can therefore be considered to have low flame spread in compliance with the International Convention for the Safety of Life at Sea, 1974.

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Sigmarine Enamel (Sigmarine 49) 40-80 µm Sigmarine Undercoat (Sigmarine 40) 50 µm Sigmarine primer ZP (Sigmarine 24) 40-80 µm Sigmarine Multiprimer (Sigmarine 28) 50-100 µm Sigmarine Aluminium HR (SigmaTherm 175) 25 µm Sigmarine Aluminium HR 500 (SigmaTherm 500) 25 µm Sigmarine primer RL (Sigmarine 21) 35 µm	a- Nippon Kaiji Kyokai b- 27-08-2003, 03EQ225FPA(N) c- 26-08-2008 d- 7240, 7213, 7135, 7117, 7260, 7261, 7113	These alkyd resin coatings have been approved with type approval No. 03FPA51PT and will be accepted for use onboard ships classed with the Society for compliance with the relevant requirements of the Society's <i>Rules for the Survey and Construction of Steel Ships</i> and those of the <i>International Convention for the Safety of Life at Sea, 1974, as amended</i> , subject to approval of the flag Administration and conditional upon that the manufacturers have a quality control system audited by a competent authority to ensure continuous compliance with the type approval conditions.
Sigma CM coating (SigmaCover 456) 100 µm Sigmaprime (SigmaPrime 200) 75 µm Sigma Univeral primer (SigmaCover 280) 50 µm Sigma Multimastic (SigmaCover 630) 100-200 µm Sigmadur gloss (SigmaDur 550) 50 µm	a- Nippon Kaiji Kyokai b- 27-08-2003, 03EQ226FPA(N) c- 26-08-2008 d- 7466, 7416, 7417, 7430, 7528 (7537)	These epoxy resin coatings have been approved with type approval No. 03FPA52PT and will be accepted for use onboard ships classed with the Society for compliance with the relevant requirements of the Society's <i>Rules for the Survey and Construction of Steel Ships</i> and those of the <i>International Convention for the Safety of Life at Sea, 1974, as amended</i> , subject to approval of the flag Administration and conditional upon that the manufacturers have a quality control system audited by a competent authority to ensure continuous compliance with the type approval conditions

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