

# اصل و ارزان بخريد

"NDTKALA" كالای بازرسان متخصص جوش ايران

تامین تجهیزات و مواد مصرفی تست های غیر مخرب ايران

تحويل کالا در تهران ۲ ساعته و در شهرستان ها ۲۴ ساعته انجام می پذیرد



۰۲۱-۷۱۰۵۳۸۸۸



www.NDTKALA.net





Carestream Health Inc.  
1049 Ridge Road West  
Rochester, NY 14615

October 2, 2020

TO USERS OF INDUSTREX PRODUCTS:

**SUBJECT: CERTIFICATE OF CONFORMANCE OF INDUSTREX FILM EMULSIONS FOR USE BY PRATT & WHITNEY VENDORS**

Listed below are the INDUSTREX film emulsions manufactured prior to September 24, 2020. All INDUSTREX film emulsions: DR50, M100, MX125, T200, AA400 meet or exceed the Pratt & Whitney Film Certification Requirements.

**Pratt & Whitney Approved Film Emulsions:**

<b>DR50</b>	207 208 209 211 221 222 223 224 225 226 227 228 229 231 232 233 234 235 236 238 239 241 242 243 244 245 247 248
<b>M100</b>	118 119 121 122 124 125 126 127 128 129 131 132 133 134 135 136 137 138 139 141 142 143 144 145 146 147 148 149 151 152 153 155 156 157 158 159 171 172 173 174 175 176 177 178 179 181 182 183 184 185 186 187 188 189 191 192 193 194 195 196 197 198 199 201 202 203 204 205 206 207 208 209 211 212 213 214 215 216 217 218 219 221 223 224 225 226 227 228 229 231 232 233 234 235 236 237 238 239 241 242 243 244 245 246 247 248 249 251
<b>MX125</b>	367 368 369 371 372 373 374 375 376 377 378 379 381 382 383 384 385 386 387 388 389 391 392 393 394 395 396 397 398 399 401 402 403 404 405 406 407 409 411 412 413 414 415 416 417 418 419 421 422 423 424 425 426 427 428 429 431 432 433 434 435 436 437 438 439 441 442 443 444 445 446 447 448 449 451 452 453 455 456 457 458 461 462 464 465 466 467 468 469 471 472 473 474 475 476 477 478 479 481 482 483 484 485 486 487 488 489 491 492 493 494 495 496 497 498 499 501 502 503 504 505 506 507 508 509 511 512 513 514 515 516 517 518 519 521 522 523 524 525 526 528 529 531 532 533 534 535 536 537 538 539 541 543 544 545 546 547 548 549 551 552 553 554 555 556 557 558 559 561 562 563 564 565 566 567 568 569
<b>T200</b>	298 299 301 302 303 304 305 306 307 308 309 311 312 313 314 315 316 317 318 319 321 322 323 324 325 326 327 328 329 331 332 333 334 335 336 337 338 341 342 343 345 346 347 348 349 351 352 353 354 355 356 357 358 359 361 362 363 364 365 366 367 368 369 371 372 373 374 375 376 377 378 379 381 206 382 383 207 385 391 392 393 394 395 396 397 398 399 401 403 404 405 406 407 409 411 412 414 415 416 417 418 431 432 433 434 435 436 437 438 439 441 442 443 444 445 446 447 448 449 451 452 453 454 455 456 457 458 459 461 462 463 464
<b>AA400</b>	617 618 619 621 622 623 624 625 626 627 628 629 631 632 633 634 635 636 637 638 639 641 642 643 644 645 646 647 648 649 651 652 653 654 655 656 657 658 659 661 662 663 664 665 666 667 668 669 671 672 673 674 675 676 677 678 679 681 682 683 684 686 687 688 689 691 692 693 695 696 697 698 699 701 702 703 704 705 706 709 713 714 715 716 717 718 719 722 723 725 726 727 728 729 731 732 733 734 735 736 737 739 741 742 743 744 745 746 747 748 749 751 752 753 754 755 756 757 758 759 761 762 763 764 765 766 767 769 771 773 774 775 776 777 778 779 781 782 783 784 785 786 787 788 789 792 793 794 795 796 798 801 802 803 804 805 806 807 808 809 811 812 813 814 815 816 817 818 819 821 822 823 824 825 826 827 828 829 831 832 833 834 835 836 837 838 839 841 842 843 844 845 846 847 848 851 852 853 854 855 856 857 858 859 861 862 863 864 865 866 867 868 869 871 872 873 874 875 877 878 879 881 882 883 884 885 886 887 888 889 891 892 893 894 895 896 897 898 901 902 903 904 905 906 907 908 909 911 912 913 914 915 916 917 918 919 921 922 923 924 925 926 927 928 929 931

Sincerely,

Joseph M. Murphy, Product Manager



**Carestream X-Ray Film System**  
**Certificate N°: BAM/ZBA/005/06**  
**4<sup>th</sup> Revised version**



Bundesanstalt für  
 Materialforschung  
 und -prüfung

Hereby it is confirmed by the BAM Certification Body, that the industrial X-ray film system with the designation

12200 Berlin, Germany  
 T: +49 30 8104-0  
 F: +49 30 8104-7 2222

**Industrex AA 400 Film,**  
**processed in the**  
**Industrex Single Part Developer,**  
**automatic film processing with immersion time of 100 seconds,**  
**developer temperature 26 °C**

of the manufacturer

**Carestream Health, Inc.**  
**Rochester, New York, 14608**  
**USA**

meets the requirements of **film system class C 5** for industrial X-ray films systems for radiographic testing according to **ISO 11699-1:2012** as well as the requirements of the **ASTM system class II** according to **ASTM E 1815-08 (2013)**.

Certificate holder according to certification contract

**No. BAM-ZBA-0013-2007-Carestream Health S.A., 2<sup>nd</sup> Revised Version:**

**Carestream Health Suisse SA**  
**Centre „Les Tuillières“**  
**Route de Cité-Ouest, 2**  
**1196 Gland**  
**Switzerland**

According to standard **ISO/IEC 17065:2012** (formerly: EN 45011:1998) the certification comprises a type examination with periodical surveillance of the products and quarterly surveillance of the manufacturing process data as well as a monitoring of the production site at Windsor, CO (BAM Certification System IIb).

The certificate is valid until **December 19, 2020**.

BAM test report **BAM VIII.3/6638** of May 9, 2006 and the results from current monitoring procedures (reference no. **BZS-GS/130/15**) are constituent parts of this certificate.

for Bundesanstalt für Materialforschung und -prüfung (BAM)  
 Unter den Eichen 87,12205 Berlin, **2015-12-20**

Dr. R. Schmidt  
 BAM Certification Body



Dr. U. Ewert  
 BAM Assessor

Distribution list:: 1<sup>st</sup> Certificate holder 2<sup>nd</sup> BAM Certification Body

The BAM Certification Body has been accredited according to standard ISO/IEC 17065:2012 by the DAkkS (Deutsche Akkreditierungsstelle GmbH). The accreditation is valid for the scope given in certificate D-ZE-11075-21-00.

This certificate may only be published in full wording and without any additions. A revocable written consent shall be obtained from BAM beforehand for any amended reproduction or the publication of any excerpts. The German version is legally binding, except an English version is issued exclusively. Place of jurisdiction is Berlin.

CERTIFICATE



November 2013

**CERTIFICATION OF INDUSTREX  
FILM SYSTEMS ACCORDING TO ASTM E1815-08**

INDUSTREX™ Film Types Covered:  
DR50, M100, MX125, T200, AA400

Processing Conditions:

	Developer	Immersion Time	Temperature
Automatic	INDUSTREX Dev	100 Seconds (8' Cycle)	26°C (79°F)

Film System Classification per ASTM E1815-08 and EN ISO 11699-1:2011:

Film Type	Process Cycle	CEN Speed	Dose mGY	Gradient		Sigma D at D = 2	Ratio G/Sigma D	ASTM Class
				D = 2	D = 4			
DR50	Auto	50	18.5	4.9	7.9	0.015	327	Special
M100	Auto	100	10.7	4.7	8.8	0.018	261	I
MX125	Auto	125	7.4	4.5	8.0	0.021	214	I
T200	Auto	250	4.4	4.3	7.1	0.025	172	I
AA400	Auto	400	2.8	4.3	7.3	0.032	134	II

These classifications will be valid if the above processing cycle is implemented and in control.

Exposure:

All exposures have been made in accordance with ASTM E1815 and EN ISO 11699-1.

Sincerely,

Joseph M. Murphy, Product Manager



November 2013

## CLASSIFICATION OF INDUSTREX FILM SYSTEMS ACCORDING TO EN ISO 11699-1:2011

INDUSTREX™ Film Types Covered:  
M100, MX125, T200 and AA400

The EN ISO 11699-1:2011 standard has been prepared by Technical Committee ISO/TC 135 "Non-destructive testing" and approved by Technical Committee CEN/TC 138 "Non-destructive testing". EN ISO 11699-1:2011 supersedes EN 584-1:2006.

Processing Conditions:

	Developer	Developer Immersion Time	Temperature
Automatic	INDUSTREX SP Dev	100 Seconds (8' Cycle)	26°C (79°F)

Film System Classification:

Film Type	Process Cycle	CEN Speed	Dose mGY	Gradient		Sigma D at D = 2	Ratio G/sigma <sub>D</sub>	EN ISO 11699-1 Class
				D = 2	D = 4			
M100	Auto	100	10,7	4,7	8,8	0,018	261	2
MX125	Auto	125	7,4	4,5	8,0	0,021	214	3
T200	Auto	250	4,4	4,3	7,1	0,025	172	4
AA400	Auto	400	2,8	4,3	7,3	0,032	134	5

These classifications will be valid if the above processing cycle is implemented and in control.

Exposure:

All exposures have been made in accordance with EN ISO 11699-1:2011 and EN 584-1:2006.

Sincerely,

Joseph M. Murphy, Product Manager

# Certificate of Registration

QUALITY MANAGEMENT SYSTEM - ISO 9001:2015

This is to certify that:

Carestream Health, Inc.  
2000 Howard Smith Ave. West  
Windsor  
Colorado  
80550  
USA

Holds Certificate No:

**FM 578260**

and operates a Quality Management System which complies with the requirements of ISO 9001:2015 for the following scope:

The manufacture and distribution of industrial X-ray film.

For and on behalf of BSI:

  
\_\_\_\_\_  
Carlos Pitanga, SVP, System Certification and Compliance

Original Registration Date: 2011-08-08

Latest Revision Date: 2018-03-30

Effective Date: 2018-04-07

Expiry Date: 2021-04-06

Page: 1 of 1



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# Carestream X-Ray Film System

## Certificate N°: BAM/ZBA/003/06

4<sup>th</sup> Revised version



Bundesanstalt für  
Materialforschung  
und -prüfung

Hereby it is confirmed by the BAM Certification Body, that the industrial X-ray film system with the designation

12200 Berlin, Germany  
T: +49 30 8104-0  
F: +49 30 8104-7 2222

**Industrex MX125 Film,  
processed in the  
Industrex Single Part Developer,**

**automatic film processing with immersion time of 100 seconds,  
developer temperature 26 °C**

of the manufacturer

**Carestream Health, Inc.  
Rochester, New York, 14608  
USA**

meets the requirements of **film system class C 3** for industrial X-ray films systems for radiographic testing according to **ISO 11699-1:2012** as well as the requirements of the **ASTM system class I** according to **ASTM E 1815-08 (2013)**.

Certificate holder according to certification contract

**No. BAM-ZBA-0013-2007-Carestream Health S.A., 2<sup>nd</sup> Revised Version:**

**Carestream Health Suisse SA  
Centre „Les Tuillières“  
Route de Cité-Ouest, 2  
1196 Gland  
Switzerland**

According to standard **ISO/IEC 17065:2012** (formerly: EN 45011:1998) the certification comprises a type examination with periodical surveillance of the products and quarterly surveillance of the manufacturing process data as well as a monitoring of the production site at Windsor, CO (BAM Certification System IIb).

The certificate is valid until December 19, 2020.

BAM test report **BAM VIII.3/6636** of May 9, 2006 and the results from current monitoring procedures (reference no. **BZS-GS/130/15**) are constituent parts of this certificate.

for Bundesanstalt für Materialforschung und -prüfung (BAM)  
Unter den Eichen 87,12205 Berlin, **2015-12-20**

Dr. R. Schmidt  
BAM Certification Body

Distribution list: 1<sup>st</sup> Certificate holder



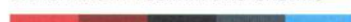
Dr. U. Ewert  
BAM Assessor

2<sup>nd</sup> BAM Certification Body

The BAM Certification Body has been accredited according to standard ISO/IEC 17065:2012 by the DAkkS (Deutsche Akkreditierungsstelle GmbH). The accreditation is valid for the scope given in certificate D-ZE-11075-21-00.

This certificate may only be published in full wording and without any additions. A revocable written consent shall be obtained from BAM beforehand for any amended reproduction or the publication of any excerpts. The German version is legally binding, except an English version is issued exclusively. Place of jurisdiction is Berlin.

CERTIFICATE





# Carestream X-Ray Film System

Certificate N°: BAM/ZBA/003/06

4<sup>th</sup> Revised version



Bundesanstalt für  
Materialforschung  
und -prüfung

Hereby it is confirmed by the BAM Certification Body, that the industrial X-ray film system with the designation

12200 Berlin, Germany  
T: +49 30 8104-0  
F: +49 30 8104-7 2222

**Industrex MX125 Film,  
processed in the  
Industrex Single Part Developer,**

**automatic film processing with immersion time of 100 seconds,  
developer temperature 26 °C**

of the manufacturer

**Carestream Health, Inc.  
Rochester, New York, 14608  
USA**

meets the requirements of **film system class C 3** for industrial X-ray films systems for radiographic testing according to **ISO 11699-1:2012** as well as the requirements of the **ASTM system class I** according to **ASTM E 1815-08 (2013)**.

Certificate holder according to certification contract

**No. BAM-ZBA-0013-2007-Carestream Health S.A., 2<sup>nd</sup> Revised Version:**

**Carestream Health Suisse SA  
Centre „Les Tuillières“  
Route de Cité-Ouest, 2  
1196 Gland  
Switzerland**

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The certificate is valid until December 19, 2020.

BAM test report **BAM VIII.3/6636** of May 9, 2006 and the results from current monitoring procedures (reference no. **BZS-GS/130/15**) are constituent parts of this certificate.

for Bundesanstalt für Materialforschung und -prüfung (BAM)  
Unter den Eichen 87,12205 Berlin, **2015-12-20**

Dr. R. Schmidt  
BAM Certification Body

Distribution list: 1<sup>st</sup> Certificate holder



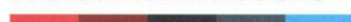
Dr. U. Ewert  
BAM Assessor

2<sup>nd</sup> BAM Certification Body

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CERTIFICATE





## INDUSTREX Films for Industrial X-ray Use - Product Guide<sup>1</sup>

INDUSTREX Film / Product Code	System Class <sup>2</sup>		Notched	Replaces		Available Formats (code)						Spectral Sensitivity	Safelight Filter	AUTOMATIC Processing Chemicals <sup>3</sup> — Fixer	Recommended Starting Points
	ASTM E1815	ISO 11699-1 EN ISO 11699-1		AGFA	FUJI	Sheets			Rolls						
						Non-interleaved (1)	Interleaved (5)	READY-PACK II (2)	PB Contactpak (7)	NIF Rolls (bulk) (359)	Lead Pack (382)				
DR50 / 6536	Special	C1	✓	D2	IX25	✓							X-ray and visible blue light	(Red) 1, 2 or GBX-2	<b>AUTOMATIC</b> 8 minute cycle Developer Time and Temperature: 100 seconds @ 26° C (79° F) 5 minute cycle Development Time and Temperature: 60 seconds @ 30° C (86° F)  <b>MANUAL<sup>6</sup></b> Development Time and Temperature: 4 minutes @ 22° C (72° F)
M100 / 5532	Class 1	C2	✓	D3	IX50	✓		✓	✓	✓	✓	✓			
MX125 / 4748	Class 1	C3		D4	IX50	✓	✓	✓	✓	✓	✓	✓			
T200 / 6537	Class 1	C4	✓	D5	IX80	✓	✓			✓	✓				
AA400 / 5533	Class 2	C5	✓	D7	IX100	✓	✓	✓	✓	✓	✓	✓			
HS800 <sup>5</sup> /5747	--	--	✓	D8/ F8	IX150	✓			✓	✓					

<sup>1</sup> Please refer to the NDT Resources at [www.carestream.com](http://www.carestream.com) for film and chemistry technical data.

<sup>2</sup> Classification applies to INDUSTREX films processed in INDUSTREX chemicals, not the other manufacturer's product they are replacing.

<sup>4</sup> For optimum archivability, such as required for nuclear applications, a 10 % increase in fixer replenishment rate may be desirable. For more information, consult TI-6K7080 INDUSTREX Films Technical Data.

<sup>5</sup> HS800 displays high speed and contrast throughout an extended range of optical densities when used with fluorescent and fluorometallic screens. HS800 is recommended for use with LANEX Fast Screens, CAT No. 116 0688.

<sup>6</sup> Eliminate guesswork in determining the proper exposure and get more consistent results by using the INDUSTREX Ir192 Film Exposure Calculator available through your regional Carestream NDT sales manager.

### <sup>3</sup> Automatic

INDUSTREX Single Part Developer Replenisher to make 40L, CAT No. 531 5288  
 INDUSTREX Single Part Developer Starter to make 19L, CAT No. 835 1413  
 INDUSTREX LO Fixer and Replenisher to make 40L, CAT No. 515 9082

### Manual

INDUSTREX Manual Developer Kit to make 40L, CAT No. 105 7009  
 - Kit contains 2 five-liter bottles of developer, 2 one-liter bottles of developer and 2 bottles of stop bath.  
 INDUSTREX Manual Fixer Kit to make 40L, CAT No. 105 7017  
 - Kit contains 2 five-liter bottles of fixer, 2 one-liter bottles of fixer and 2 bottles of rinse solution.  
 Sold separately as  
 INDUSTREX Manual Developer to make 40L, CAT No. 532 0635  
 INDUSTREX Manual Fixer to make 40L, Cat No. 532 0643  
 INDUSTREX Manual Stop Bath to make 40L, CAT No. 105 4873  
 INDUSTREX Manual Rinse Solution to make 40L, CAT No. 105 7025



# Certificate of Registration

## QUALITY MANAGEMENT SYSTEM - ISO 9001:2015

This is to certify that:

Carestream Health, Inc  
150 Verona Street  
Rochester  
New York  
14608  
USA


Holds Certificate No:

**FM 537916**

and operates a Quality Management System which complies with the requirements of ISO 9001:2015 for the following scope:

The design, development, manufacture, and service of digital radiography imaging systems (such as INDUSTREX digital systems) and accessories for the non-destructive testing industry.

For and on behalf of BSI:

  
Carlos Pitanga, Chief Operating Officer Assurance – Americas

Original Registration Date: 2008-07-17

Effective Date: 2019-10-21

Latest Revision Date: 2019-09-24

Expiry Date: 2022-10-20



Page: 1 of 2

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Certificate No: **FM 537916**

Location

Carestream Health, Inc  
150 Verona Street  
Rochester  
New York  
14608  
USA

Registered Activities

The design, development, manufacture, and service of digital radiography imaging systems (such as INDUSTREX digital systems) and accessories for the non-destructive testing industry.

Carestream Health, Inc  
1049 West Ridge Road  
Rochester  
New York  
14615  
USA

The design and manufacture of digital radiography imaging systems (such as INDUSTREX digital systems) and accessories for the non-destructive testing industry.



Original Registration Date: 2008-07-17

Latest Revision Date: 2019-09-24

Effective Date: 2019-10-21

Expiry Date: 2022-10-20

Page: 2 of 2





November 2013

**CERTIFICATION OF INDUSTREX  
FILM SYSTEMS ACCORDING TO RCC-M code**

INDUSTREX™ Film Types Covered:  
M100, MX125, T200 and AA400

The RCC-M code defines the design and construction rules for the mechanical components of nuclear power plants. The RCC-M code classifies film systems into 6 classes in accordance with the EN ISO 11699-1:2011 standard. The EN ISO 11699-1:2011 standard has been prepared by Technical Committee ISO/TC 135 "Non-destructive testing" and approved by Technical Committee CEN/TC 138 "Non-destructive testing". EN ISO 11699-1:2011 supersedes EN 584-1:2006.

Processing Conditions:

	Developer	Developer Immersion Time	Temperature
Automatic	INDUSTREX SP Dev	100 Seconds (8' Cycle)	26°C (79°F)

Film System Classification:

Film Type	Process Cycle	CEN Speed	Dose mGY	Gradient		Sigma D at D = 2	Ratio G/sigma <sub>D</sub>	EN ISO 11699-1 Class
				D = 2	D = 4			
M100	Auto	100	10,7	4,7	8,8	0,018	261	2
MX125	Auto	125	7,4	4,5	8,0	0,021	214	3
T200	Auto	250	4,4	4,3	7,1	0,025	172	4
AA400	Auto	400	2,8	4,3	7,3	0,032	134	5

These classifications will be valid if above processing cycle is implemented and in control.

Exposure:

All exposures have been made in accordance with EN ISO 11699-1:2011 and EN 584-1:2006.

Sincerely,

Joseph M. Murphy, Product Manager





**Carestream X-Ray Film System**  
**Certificate N°: BAM/ZBA/004/06**



Bundesanstalt für  
 Materialforschung  
 und -prüfung

**4<sup>th</sup> Revised version**

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12200 Berlin, Germany  
 T: +49 30 8104-0  
 F: +49 30 8104-7 2222

**Industrex T200 Film,  
 processed in the  
 Industrex Single Part Developer,**

**automatic film processing with immersion time of 100 seconds,  
 developer temperature 26 °C**

of the manufacturer

**Carestream Health, Inc.  
 Rochester, New York, 14608  
 USA**

meets the requirements of **film system class C 4** for industrial X-ray films systems for radiographic testing according to **ISO 11699-1:2012** as well as the requirements of the **ASTM system class I** according to **ASTM E 1815-08 (2013)**.

Certificate holder according to certification contract

**No. BAM-ZBA-0013-2007-Carestream Health S.A., 2<sup>nd</sup> Revised Version:**

**Carestream Health Suisse SA  
 Centre „Les Tuillières“  
 Route de Cité-Ouest, 2  
 1196 Gland  
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The certificate is valid until **December 19, 2020**.

BAM test report **BAM VIII.3/6637** of May 9, 2006 and the results from current monitoring procedures (reference no. **BZS-GS/130/15**) are constituent parts of this certificate.

for Bundesanstalt für Materialforschung und -prüfung (BAM)  
 Unter den Eichen 87,12205 Berlin, **2015-12-20**

Dr. R. Schmidt  
 BAM Certification Body  
 Distribution list: **1<sup>st</sup> Certificate holder**



Dr. U. Ewert  
 BAM Assessor

The BAM Certification Body has been accredited according to standard ISO/IEC 17065:2012 by the DAkkS (Deutsche Akkreditierungsstelle GmbH). The accreditation is valid for the scope given in certificate D-ZE-11075-21-00.

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CERTIFICATE





# فروش انواع فیلم های پرتونگاری صنعتی



فوما



کداک کرسٹریم



داروی ظهور و تثبوت



فوجی

☎ ۰۲۱-۷۱۰۵۳۸۸۸

☎ ۰۹۱۲۰۲۴۶۲۷۰