

XTR Cleaner & Remover

Standard Formula A

XTR Cleaner is a ready-to-use aerosol that saves time and money by quickly eliminating oil residues, dissolving grease, and other surface contaminants, allowing for a cleaner inspection process. Effectively removes penetrants and developers' post-inspection.

Typical Applications:

Class 2, Nonhalogenated, Solvent Remover furnished in a ready-to-use condition that does not require mixing or stirring. For use in pre-cleaning of dirty parts, and post-inspection clean-up in dye penetrant inspection. XTR Cleaner is a solvent-based, aerosol cleaner and remover formulated using high quality, vendor certified, raw materials. Product is noncorrosive and nonoxidizing. Does not contain asbestos, compounds of hexavalent chromium, Class 1 Ozone Layer Depleting Substances (OLDS), or OLDS banned by federal regulation. Does not contain halogens and chlorides (see ASTM results below).

Standards, Specifications, Typical Analysis:

Flash Point ASTM D93
Viscosity ASTM D445
Water Tolerance AMS2644 (4.4.10)
Removability AMS2644 (4.4.11)
Water Content ASTM D95
Sulphur ASTM D-129
Fluoride ASTM D-808

Not Applicable (aerosol form)
As detailed in C of A
Not water soluble
Pass
Less than 5%
Less than 1%
Less than 1%

Chloride ASTM D-808 Less than 1%
Total Halogen Content ASTM T-641 Less than 1%

Shelf Life Two years from date of manufacture







XTR Red Dye Penetrant

Standard Formula A

XTR Red Dye Penetrant is a ready-to-use aerosol provides fast and easy results under visible light conditions. Used in conjunction with XTR Developer Form e, product saves time and money by quickly identifying potential cracks and surface discontinuities. Solvent removable penetrant cleans up quickly and easily with XTR Cleaner and Remover.

Typical Applications:

Total Halogen Content ASTM T-641

Type 2, Visible Dye Penetrant, Method C, Solvent Removable, furnished in a ready-to-use condition that does not require mixing or stirring. A solvent-based aerosol formulated using high quality, vendor certified, raw materials. Product is noncorrosive and nonoxidizing. Does not contain asbestos, compounds of hexavalent chromium, Class 1 Ozone Layer Depleting Substances (OLDS), or OLDS banned by federal regulation. Does not contain halogens and chlorides (see ASTM results below).

Standards, Specifications, Typical Analysis:

Flash Point ASTM D93 Not Applicable (aerosol form) Viscosity ASTM D445 As detailed in C of A Water Tolerance AMS2644 (4.4.10) Not water soluble Removability AMS2644 (4.4.11) Pass Water Content ASTM D95 Less than 5% Sulphur ASTM D-129 Less than 1% Fluoride ASTM D-808 Less than 1% Chloride ASTM D-808 Less than 1%

Shelf Life Two years from date of manufacture

Less than 1%







XTR Developer Powder

Standard Formula A

XTR Developer is a ready-to-use aerosol that saves time and money by quickly highlighting red dye surface discontinuities against a bright, white background. Container pellet aids in agitation, ensuring complete product redispersibility prior to spray-out.

Typical Applications:

Form e, Nonaqueous Type 2, White Developer Powder that provides a brilliant white contrast against XTR Red Dye Penetrants under visible light conditions. The smooth, consistent surface coating can be easily removed with CAR-A Cleaner and Remover. A solvent-based, white developer aerosol formulated using high quality, vendor certified, raw materials. Product is noncorrosive and nonoxidizing. Does not contain asbestos, compounds of hexavalent chromium, Class 1 Ozone Layer Depleting Substances (OLDS), or OLDS banned by federal regulation. Does not contain halogens and chlorides (see ASTM results below).

Standards, Specifications, Typical Analysis:

Flash Point ASTM D93 Not Applicable (aerosol form)
Viscosity ASTM D445 As detailed in C of A
Water Tolerance AMS2644 (4.4.10) Not water soluble

Removability AMS2644 (4.4.11) Pass

Water Content ASTM D95 Less than 5% Developer Fluorescence AMS2644 (4.4.11) Pass Developer Removability AMS2644 (4.4.11) Pass Redispersibility AMS2644 (4.4.11) Pass

Sulphur ASTM D-129 Less than 1%
Fluoride ASTM D-808 Less than 1%
Chloride ASTM D-808 Less than 1%
Total Halogen Content ASTM T-641 Less than 1%

Shelf Life Two years from date of manufacture







Nondestructive Testing, Dye Penetrant Inspection Process

Step 1

Clean work piece with XTR Cleaner

Pre-cleaning of the test piece, this must be done thouroughly so that any defects are open to the surface and free of dirt, rust, scale, paint, oil, and grease. Allow the cleaner to dry completely.



Step 2

Apply XTR Red Dye Penetrant

Due to the penetrant's high wetting capability, it penetrates surface defects and permeates cracks. It can be applied by spray or by brushing onto the workpiece. Allow the penetrant to sit for the required dwell time (minimum of 10 minutes).



Step 3

Clean work piece, remove Penetrant

Clean surface red dye penetrant off with cleaner, removing only surface visable product. Typically achieved with spraying cleaner on a towel and wiping off all surface dye. Allow the cleaner to dry completely.



Step 4

Apply XTR Developer to surface

A thin coating of developer should be sprayed on the part being examined. Allow time for the dye to exit the flaws and create an indication in the developer. The dwell time for developer is typically 15 to 60 minutes.



Step 5

Evaluate indications

It is critical to examine the part within the time frame designated in any written procedure. Length of an indication can grow over time as penetrant bleeds out, causing an acceptable indication to be a rejectable defect.



Step 6

Post clean work piece

The part needs to be cleaned to remove all developer after it has been evaluated. Fix any cracks needing attention and repeat steps 1-6. Failure to remove all penetrant product may cause post-processing bleed out.

Be sure to follow any and all codes, including ASME Section V.





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