



QPL LISTED
AMS-2644

ZChek



NDT
MPI | LPI PRODUCTS



ZChek is the world renowned brand of ZChem Specialities Private Limited.

ZChek offers complete range of NDT products in Magnetic Particle Inspection & Liquid Penetrant Inspection Techniques. Backed by unique technology, ZChek products are manufactured using "Green" raw material in state - of the- art manufacturing facility. With vital combination of vision to grow, commitment to offer value to the customer and over 50 years of management competence, we are the unique choice for our customers.

ZChem has a strong professional team capable of developing and offering customized products and solutions for various applications. All ZChek products are designed to meet the most stringent requirements of the industry norms across the globe.



1. PRECLEAN



2. APPLY PENETRANT



3. REMOVE EXCESS PENETRANT



4. DRY & APPLY DEVELOPER



5. INSPECTION



ZChek Visible Liquid Penetrant Inspection Consumables confirm to the Specifications of

- ASME Boiler & Pressure Vessel . Section V
- ASTM E1417
- ENISO 3452-2
- AMS 2644
- IS 3658
- NPCIL

ZChek - PT

Solvent Removable Visible Red Dye Penetrant - Formulated to provide excellent penetrating property.

- Brilliant color contrast red : Excellent visibility
- Perfect capillary action - Excellent Penetration
- High wetting ability - Excellent coverage
- Non-Halogenated - Safe on all metals
- High flash point - Safe to use



ZChek - PTW

Water Washable Visible Red Dye Penetrant – Formulated to provide excellent Penetrating property

- Brilliant color contrast – Red : Excellent visibility
- Perfect capillary action – Excellent penetration
- High wetting ability – Excellent coverage
- Non-Halogenated – Safe on all metals
- High flash point - Safe to use



ZChek - CL

Is a High-performance Solvent Cleaner

- No residue – Good for penetrant performance
- Odorless – User-friendly
- Controlled evaporation – Excellent cleaning & less consumption
- Non-toxic - Environmentally acceptable



ZChek - CR

Is a non-Aqueous Cleaner/Remover designed to offer Quick Cleaning Action

- No residue - Good for penetrant performance
- Low odor - User friendly
- Controlled Evaporation - Excellent Cleaning & Less consumption



ZChek - DL

Is a High Performance Non-Aqueous Developer

- Brilliant White – Excellent Contrast
- Non-Halogenated – Safe on all metals
- High Area Coverage – Cost effective
- Controlled Evaporation – Enhances complete Bleed out



ZChek Dye Penetrant consumables are offered in 1Ltr bulk and 520mL aerosol cans.

ZChek - High Temperature Penetrant Materials Up to 200° C

ZChek - PH

- Vivid Red- Offers high contrast
- High temperature Penetrant (Upto 200°C) Speeds up the inspection process time by eliminating the cooling time
- High sensitivity - Detects fine cracks
- High flash point - Safe to use

ZChek - CH

High Temperature Cleaner

- No residue - Better Penetrant action
- No odor - User friendly
- Fast action - Lower process time

200 C° | Save time



ZChek - DH

High Temperature Developer

- Brilliant white - High contrast. High sensitivity
- Non-halogenated - Safe on all metals.
- High-temperature developer – speed up the inspection process time by eliminating the cooling time.

ZChek High temperature Penetrant Inspection Consumables confirm to the Specifications of

- ASME Boiler & Pressure Vessel . Section V
- ENISO 3452-2
- ENISO 3452-5

✓ APPROVED -AMS2644

Method A

Water Washable

Method B

Lipophilic

Method C

Solvent Removable

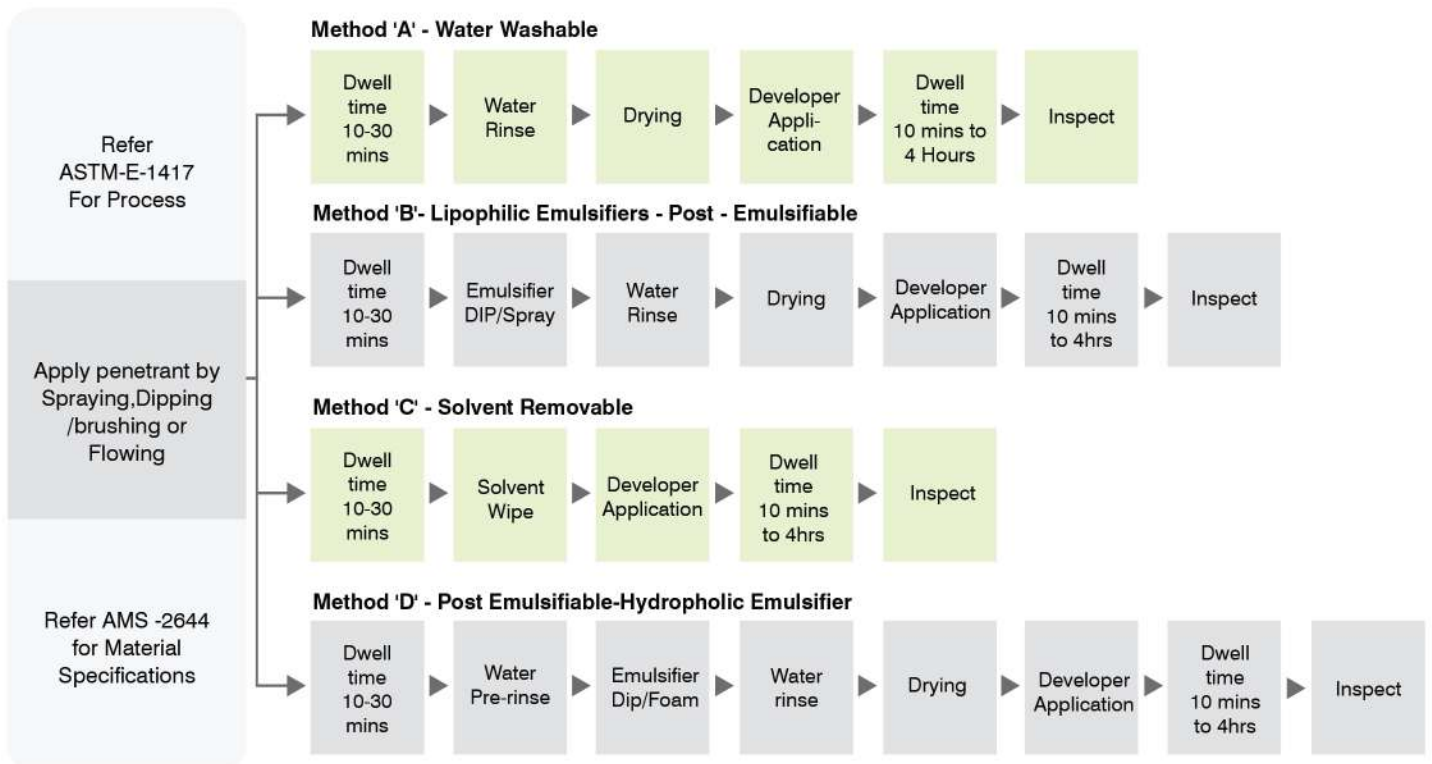
Method D

Hydrophilic

Penetrants	Penetrants	Penetrants	Penetrants
ZChek-FP1 - Sensitivity Level 1	ZChek-FP11 - Sensitivity Level 2	ZChek-FP11 - Sensitivity Level 2	ZChek-FP11 - Sensitivity Level 2
ZChek-FP2 - Sensitivity Level 2	ZChek-FP12 - Sensitivity Level 3	ZChek-FP12 - Sensitivity Level 3	ZChek-FP12 - Sensitivity Level 3
ZChek-FP3 - Sensitivity Level 3	ZChek-FP22 - Sensitivity Level 4	ZChek-FP22 - Sensitivity Level 4	ZChek-FP22 - Sensitivity Level 4
ZChek-FP4 - Sensitivity Level 4			
Emulsifiers/Removers	Emulsifiers/Removers	Emulsifiers/Removers	Emulsifiers/Removers
NA	ZChek-EF81	ZChek-CR ZChek-CL	ZChek-EF9
Developers	Developers	Developers	Developers
ZChek-DD9 Form "a" Dry powder developer	ZChek-DD9 Form "a" Dry powder developer	ZChek-DL Non- Aqueous developer	ZChek-DD9 Form "a" Dry powder developer

*QPL listing is in progress for some of the above products.

FLUORESCENT PENETRANT PROCESS AS PER ASTM-E1417



- Penetrant Pack Size- 205ltr / 55 gallon/ 20 ltr/ 5 gallon/ 5 ltr
- Aerosol can -420ml, case of 12
- ZChek -DD9 Pack size - 1kg/2.20 Pound





Dry Method

ZChek - 9D Red

General purpose magnetic powder formulated to form excellent indications of discontinuities at the surface or near surface of the test part.



Wet Method - Non Fluorescent

ZChek - 9E Black

A black coloured magnetic powder concentrate designed for usage in non fluorescent wet method and on light colored part surface.



ZChek - WP White Contrast paint

This is a blend of solvent and fine inorganic pigments. When sprayed, it provides white background for magnetic powders, enhancing visibility of indications.



ZChek - NF Red

A red magnetic powder concentrate designed for usage in non fluorescent wet method preferred for good contrast on gray, black or dark surfaces.

ZChek - 9 Black

Non Fluorescent Powder for Wet method MPI

- High sensitivity
- High contrast

Wet Method - Fluorescent

ZChek - F9

Fluorescent magnetic particles specially designed for forging and auto component application.

- Fluoresces bright green - Brilliant indication
- Low background - Enhances visibility
- Encapsulation technology - No loose pigment

ZChek - F9W

Is the blend of fluorescent powder F9 and wetting agent WA9. F9W is readily usable with water. The anti corrosion agents in WA9 prevent flash rusting of the components.

ZChek - F18

Is high sensitive fluorescent magnetic particles designed to detect ultra fine defects. F18, thanks to its very low particles size offers high inspection reliability.

- Fluoresces yellow green - Optimum indication
- Very low background - Enhances inspection reliability

ZChek - F18W

Is the blend of fluorescent powder F18 and wetting agent WA9. F18 is readily usable with water. The anti corrosion agents in WA9 prevent flash rusting of the components.

ZChek - F18B

F18B - Aquamix is a ready bath liquid concentrate of fluorescent powder, wetting agents and corrosion inhibitors - to be used with water.

ZChek - FB

Is a fine blend of fluorescent magnetic powders suspended in ZChek 801 cart oil at proper concentration and packed in the aerosol can



ZChek - F9B

F9B - Aquamix is a ready bath liquid concentrate of fluorescent powder, wetting agents and corrosion inhibitors - to be used with water.

Water Conditioners & Additives

ZChek - WA9

WA9 - General-purpose water-conditioning powder to enhance surface wetting and magnetic particle dispersion stability in water-based magnetic particle suspensions

Carrier Oil/ Cart Oil

ZChek - 801

Cart oil is specially formulated carrier fluid for magnetic particle

- High flash point - Safe
- Low odor - Operator friendly
- No background fluorescence - More inspection reliability

ZChek Magnetic particle inspection materials confirm to specifications of

- ASTM E3024/E3024M	AMS 2641	AMS 3044
- ASTM E-1444	AMS 3040	AMS 3045
- ENISO 9934-2, ASTM E709	AMS 3042	AMS 3046
- ASME Boiler & Pressure Vessel . Section V, Art 7	AMS 3043	

Equipment- Magnetic Particle Inspection

ZChem provides a comprehensive range of MPI equipment, including Power sources, Bench units, Custom-designed systems, and Multidirectional equipment. Our solutions are engineered with unique features that deliver distinct advantages to users while ensuring full compliance with ASTM and NADCAP standards.



ZC Series

Standard & Multidirectional MPI Bench Equipment
 ZC-230
 ZC-450
 ZC-450MD
 ZC-600D



Custom Built MPI

For proposal on custom built



ZM Series

Mobile MPI Power Source for Prod & CableWrap Method
4000 Amps to 20,000 Amps



MD Series

3 Phase FWDC multidirectional MPI machine.



ZP Series

Portable MPI Power Source for Prod & CableWrap Method
1,500 Amps to 3,000 Amps



DC Magnetising Coils

DC Magnetising coils **Ranging from min 6" Diameter to 20" Diameter** and also custom designed coils as per specification

Our Client's Aerospace

Automotive



Engineering



Equipment- Fluorescent Penetrant Inspection

ZChem offer standard FPI Systems & custom designed FPI system for aerospace /Aviation applications, medical implants & Automotive/ Engineering applications.



ZC 900B FPI Booth System

FPI Booth system includes penetrant booth, Hot air drier station, dry developer chamber and monorail system with I beam for movement of fixtures from one station to another.



ZC 900 FPI Dip Tank System

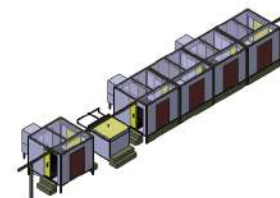
Fluorescent Penetrant Inspection equipment designed to use water washable or post emulsified penetrant to detect surface discontinuities. Very useful in high volume inspection of medium to small sized parts in Aviation, Aerospace, Engineering or medical implants applications.



FPI system can be custom designed to suit the specific requirements with definite tank sizes with job holding fixtures.

ZC 900T FPI Booth System

Automated transporter system will be integrated with pre-clean and FPI line which can automate the preclean line and FPI system enhancing the output from the system and lines are generally custom designed to suit a requirement.



Pre cleaning & Post cleaning system



FPI Dip Tank System



FPI Booth System Electrostatic Spray Type



Custom built FPI system

Electro Magnetic Yokes



ZC-9

AC Electromagnetic Yoke

Lifting Capacity: 4.5 KG
 Yoke Weight: 2.4 KG
 Input Supply: 220/110V



ZC-9D

AC/DC Electromagnetic Yoke

Lifting Capacity: 22.5 KG
 Yoke Weight: 3.5 KG
 Input Supply: 220V



ZC-9M

Permanent Magnet Yoke

Lifting Capacity: 18 KG
 Yoke Weight: 2.4 KG
 Input Supply: NA

UV LED Lamps



ZUV-4

LED Battery Operated

UV-A 365
 Intensity : 8,000 $\mu\text{W}/\text{cm}^2$



ZUV-20

LED Flood Lamp

UV-A 365
 Intensity : 10,000 $\mu\text{W}/\text{cm}^2$



ZUV-6

LED Hand Lamp




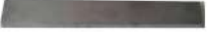
























UV-A 365
 Intensity : 6,000 $\mu\text{W}/\text{cm}^2$

Oil & Gas Approvals



Accessories



 Aluminium Test Block	 NI-CR Panel	 Tampanel	 ASTM Test Bar for Yoke	 Lifting Block						
 Puffer Bulb	 BHEL Test Block	 Pie Gauge	<table border="1" data-bbox="960 488 1200 600"> <tr> <td>KSC 230</td> <td>KSC 4-230</td> <td>KSCT 234</td> </tr> <tr> <td></td> <td></td> <td></td> </tr> </table> QQI Shims	KSC 230	KSC 4-230	KSCT 234				 Spray Gun
KSC 230	KSC 4-230	KSCT 234								
										
 Magnetic Flux Indicator	 Centrifuge Tube	 Probe Gauss Meter	 UV/ White Light Intensity Meter	 MTU Test Block						
 AS5282 Ring	 Residual Field Indicator	 Mag Cables 120 Sq.MM	 Copper Pads	 Steady Rest & Contact Block Adaptors						

To download Batch certificates and MSDS visit our website www.zchem.in



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ZChem ATC is now ASNT's authorised training centre for level I and level II in MT and PT