# Valutek Nitrile Cleanroom



12" Glove



Part Number: VTGNCRB12

Valutek's 12" ambidextrous nitrile powder-free cleanroom glove is crafted from 100% clean, synthetic nitrile polymer, with no rubber latex content.

This glove features textured fingertips and a beaded long cuff design, offering the highest level of cleanliness and operator dexterity, while maintaining very low levels of particle and extractable counts.

All Valutek gloves are tested and are manufactured in ISO-compliant facilities, subject to Valutek inspection and stringent process control, ensuring compliance with Valutek quality standards and product specifications.

#### **Features**

- 100% clean and synthetic nitrile polymer (Acrylonitrile Butadiene)
- Accelerator and sulfur free
- 12"/290 mm length with beaded long cuff
- Contains no fillers, silicones, or plasticizers
- Textured fingertips, powder-free, double chlorination and 18 mega-ohm D.I. water rinse
- Low levels of particles and extractable counts
- ESD compliant, acid and solvent compatible

#### **Application**

As part of the **Valutek Nanotek product line,** this glove is packaged for cleanrooms and recommended for use in a **Class 1-10 (ISO 3-4)** critical environment.

It is also recommended for use in a wide variety of applications that require an extremely clean glove such as wafer fabrication, disk drives, semiconductor, biotechnology, non-aseptic pharmaceutical and optics.

### **Packaging**





- Outer bag contains inner bag with 2 stacks of 50 gloves.
- Gloves packaged cuffs on bottom, vacuum sealed, flat packed and with a carton liner.
- 100 ea/bag, 10 bags/case, 1000 ea/case.
- Critical environment compatible.
- All gloves are lot trace-able with retention samples held in Quality Control for 36 months from the date of manufacturing.











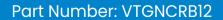






INNOVATIVE SOLUTIONS FOR CRITICAL ENVIRON MENTS

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#### **VTGNCRB12 Physical Properties**

| Part Number  | Size | Palm Width (mm) | Weight (gm)   | Length (inch/mm) | Test Method     |
|--------------|------|-----------------|---------------|------------------|-----------------|
| VTGNCRB12-XS | XS   | 75 ± 5          | 5.5 ± 0.2     |                  |                 |
| VTGNCRB12-SM | SM   | 85 ± 5          | $6.0 \pm 0.2$ |                  | IEST-RP-CC005.4 |
| VTGNCRB12-MD | MD   | 95 ± 5          | 6.5 ± 0.2     | 12"/290          | ASTM D3767      |
| VTGNCRB12-LG | LG   | 105 ± 5         | $7.0 \pm 0.2$ |                  |                 |
| VTGNCRB12-XL | XL   | 115 ± 5         | 7.5 ± 0.2     |                  |                 |
| VTGNCRB12-2X | 2X   | 125 ± 5         | $8.0 \pm 0.2$ |                  |                 |

| Tensile Properties | Tensile Strength | Ultimate Elongation | Test Method |
|--------------------|------------------|---------------------|-------------|
| Before Aging       | 18 MPa, min      | 500%, min           |             |
| After Aging        | 16 MPa, min      | 450%. min           | ASTM D412   |
| Arter Aging        | 10 Wil G, TTIIT  | 430%, 111111        |             |

<sup>\*</sup>Barrier Integrity: AQL 1.5

# **VTGNCRB12 Technical Performance**

| Attribute                               | Value          | Units  | Test Method                         |
|---|----------------|--|-------------------------------------|
| Particle Counts                         |                |  |                                     |
| LPC: ≥0.5 μm                            | <600           | particles/cm <sup>2</sup>  | IEST-RP-CC005.4, Sec 16.4           |
| Non Volatile Residue (NVR)              |                |  |                                     |
| DI Water                                | <2.0           | μg/cm²   | IEST-RP-CC005.4, Sec 17.2           |
| IPA                                     | <5.0           | μg/cm²   | IEST-RP-CC005.4, Sec 17.2           |
| FTIR                                    |                |  |                                     |
| Silicone Oil, Amide, DOP                | Not Detectable |  | IEST-RP-CC005.4, Sec 17.4           |
| Extractable Counts (lons)               |                |  |                                     |
| Sodium(Na)                              | <0.02 µg/cm²   | Fluoride(F-) <0.001 µg/cm²                                       |                                     |
| Potassium(K)                            | <0.02 µg/cm²   | Bromide(Br <sup>-</sup> ) <0.001 μg/cm <sup>2</sup>              |                                     |
| Calcium(Ca)                             | <0.30 µg/cm²   | Phosphate(PO4 $^{3-}$ ) <0.002 µg/cm <sup>2</sup>                |                                     |
| Magnesium(Mg)                           | <0.005 µg/cm²  | Chloride(CI <sup>-</sup> ) <0.20 μg/cm <sup>2</sup>              |                                     |
| Ammonium(NH4 <sup>+</sup> )             | <0.005 μg/cm²  | Sulfate(SO <sub>4</sub> <sup>2</sup> -) <0.06 μg/cm <sup>2</sup> | IEST-RP-CC005.4, Sec 17             |
| Nitrate(NO3-)                           | <0.12 µg/cm²   | Nitrite(NO <sub>2</sub> <sup>-</sup> ) <0.001 μg/cm²             |                                     |
| Lithium(Li)                             | <0.005 µg/cm²  | Aluminium(AI) <0.01 µg/cm²                                       |                                     |
| Zinc(Zn)                                | <0.07 µg/cm²   | Iron(Fe) <0.005 μg/cm²   |                                     |
| Copper(Cu)                              | <0.0004 µg/cm² |  |                                     |
| Endotoxin Level                         |                |  |                                     |
| imit: Max 20 EU/Glove                   |                | FILOLO   | LAL Kinetic Turbidimetric, USP <85> |
| Limit of Reporting (LOR) = 0.2 EU/Glove | <0.2           | EU/Glove   | LAL MITERIC TURDICITTERIO, USP (85) |
| ESD Properties                          |                |  |                                     |
| Electrostatic Decay                     | <5 seconds     | Tribo Charge <50 V   | ANSI/ESD SP15.1                     |
|   |                | Tribo Charge <50 V   | ANSI/ESD SPID.I                     |

\*Note: Technical data listed reflects upper/lower limits. Certificates of Analysis available upon request for actual lot-to-lot test data. 36 month lot trend analysis available upon request.



Surface Resistivity

Valutek WEST Phoenix, AZ - USA

<1 X 10E11 Ω

✓ Valutek EAST

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