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## TECHSPEC® $\lambda/4$ N-BK7 Laser Line Windows See More by [SCHOTT Optical Components](#)



- <0.25% Reflection at Design Wavelength
- Coatings Available for HeNe, Diode, and Nd:YAG Laser Sources
- Precision N-BK7 Substrate
- Also Available [Uncoated](#), [MgF<sub>2</sub> Coated](#) and [VIS 0° Coated](#)

### Common Specifications

#### Physical & Mechanical Properties

|                               |                      |                              |       |
|-------------------------------|----------------------|------------------------------|-------|
| <b>Bevel:</b>                 | Protective as needed | <b>Parallelism (arcmin):</b> | ≤1    |
| <b>Young's Modulus (GPa):</b> | 82                   | <b>Poisson's Ratio:</b>      | 0.206 |
| <b>Edges:</b>                 | Fine Ground          |                              |       |

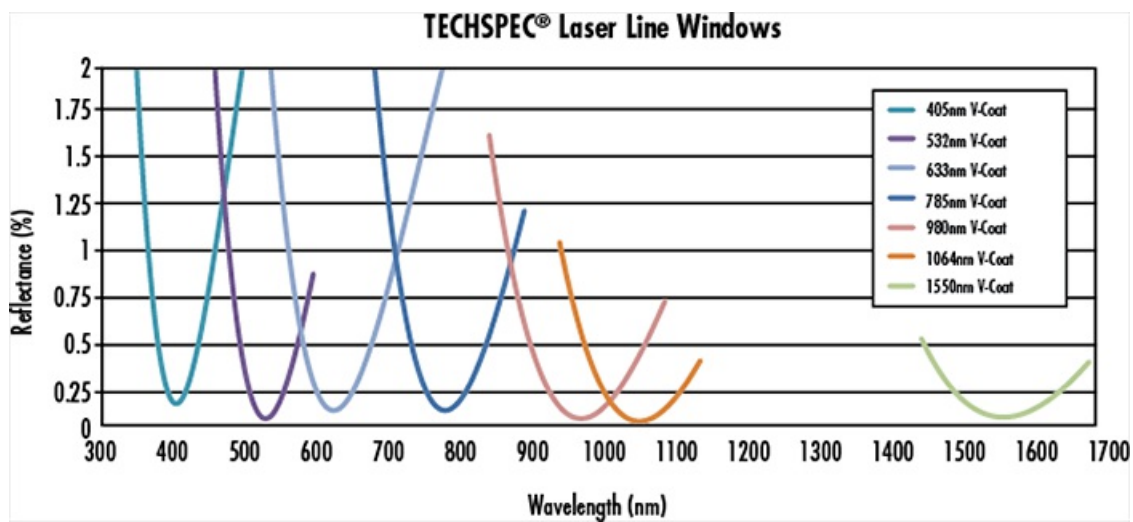
#### Optical Properties

|                                             |                       |                                     |       |
|---------------------------------------------|-----------------------|-------------------------------------|-------|
| <b>Substrate:</b>                           | <a href="#">N-BK7</a> |                                     |       |
| <b>Surface Flatness (P-V):</b>              | $\lambda/4$           | <b>Surface Quality:</b>             | 60-40 |
| <b>Index of Refraction (n<sub>d</sub>):</b> | 1.516                 | <b>Abbe Number (v<sub>d</sub>):</b> | 64.17 |

#### Material Properties

|                                                                   |                                           |                                    |      |
|-------------------------------------------------------------------|-------------------------------------------|------------------------------------|------|
| <b>Coefficient of Thermal Expansion CTE (10<sup>-6</sup>/°C):</b> | 7.1 (-30 to +70°C)<br>8.3 (+20 to +300°C) | <b>Density (g/cm<sup>3</sup>):</b> | 2.51 |
|-------------------------------------------------------------------|-------------------------------------------|------------------------------------|------|

## Technical Information



## Products

| Coating                  | Dia.<br>(mm) | Thickness<br>(mm) | DWL<br>(nm) | Stock<br>Number         | Price                   | Buy      |
|--------------------------|--------------|-------------------|-------------|-------------------------|-------------------------|----------|
| Laser V-Coat<br>(405nm)  | 5.00         | 2.00              | 405         | <a href="#">#64-035</a> | €87,00<br>Qty 6+ €70,00 | 3-4 days |
| Laser V-Coat<br>(532nm)  | 5.00         | 2.00              | 532         | <a href="#">#49-125</a> | €87,00<br>Qty 6+ €70,00 | 3-4 days |
| Laser V-Coat<br>(633nm)  | 5.00         | 2.00              | 633         | <a href="#">#49-135</a> | €87,00<br>Qty 6+ €70,00 | In Stock |
| Laser V-Coat<br>(785nm)  | 5.00         | 2.00              | 785         | <a href="#">#64-045</a> | €87,00<br>Qty 6+ €70,00 | 3-4 days |
| Laser V-Coat<br>(980nm)  | 5.00         | 2.00              | 980         | <a href="#">#83-515</a> | €87,00<br>Qty 6+ €70,00 | 3-4 days |
| Laser V-Coat<br>(1064nm) | 5.00         | 2.00              | 1064        | <a href="#">#49-145</a> | €87,00<br>Qty 6+ €70,00 | 3-4 days |
| Laser V-Coat<br>(1550nm) | 5.00         | 2.00              | 1550        | <a href="#">#83-525</a> | €87,00<br>Qty 6+ €70,00 | 3-4 days |
| Laser V-Coat<br>(405nm)  | 9.00         | 2.00              | 405         | <a href="#">#64-036</a> | €87,00<br>Qty 6+ €70,00 | 3-4 days |
| Laser V-Coat<br>(532nm)  | 9.00         | 2.00              | 532         | <a href="#">#49-126</a> | €87,00<br>Qty 6+ €70,00 | In Stock |
| Laser V-Coat<br>(633nm)  | 9.00         | 2.00              | 633         | <a href="#">#49-136</a> | €87,00<br>Qty 6+ €70,00 | 3-4 days |
| Laser V-Coat<br>(785nm)  | 9.00         | 2.00              | 785         | <a href="#">#64-046</a> | €87,00<br>Qty 6+ €70,00 | 3-4 days |
| Laser V-Coat<br>(980nm)  | 9.00         | 2.00              | 980         | <a href="#">#83-516</a> | €87,00<br>Qty 6+ €70,00 | 3-4 days |
| Laser V-Coat<br>(1064nm) | 9.00         | 2.00              | 1064        | <a href="#">#49-146</a> | €87,00<br>Qty 6+ €70,00 | 3-4 days |
| Laser V-Coat<br>(1550nm) | 9.00         | 2.00              | 1550        | <a href="#">#83-526</a> | €87,00<br>Qty 6+ €70,00 | 3-4 days |
| Laser V-Coat<br>(405nm)  | 10.00        | 2.00              | 405         | <a href="#">#64-037</a> | €87,00<br>Qty 6+ €70,00 | 3-4 days |
| Laser V-Coat<br>(532nm)  | 10.00        | 2.00              | 532         | <a href="#">#49-127</a> | €87,00<br>Qty 6+ €70,00 | 3-4 days |

|                          |       |      |      |                         |                         |          |
|--------------------------|-------|------|------|-------------------------|-------------------------|----------|
| Laser V-Coat<br>(633nm)  | 10.00 | 2.00 | 633  | <a href="#">#49-137</a> | €87,00<br>Qty 6+ €70,00 | In Stock |
| Laser V-Coat<br>(785nm)  | 10.00 | 2.00 | 785  | <a href="#">#64-047</a> | €87,00<br>Qty 6+ €70,00 | 3-4 days |
| Laser V-Coat<br>(980nm)  | 10.00 | 2.00 | 980  | <a href="#">#83-517</a> | €87,00<br>Qty 6+ €70,00 | 3-4 days |
| Laser V-Coat<br>(1064nm) | 10.00 | 2.00 | 1064 | <a href="#">#49-147</a> | €87,00<br>Qty 6+ €70,00 | 3-4 days |
| Laser V-Coat<br>(1550nm) | 10.00 | 2.00 | 1550 | <a href="#">#83-527</a> | €87,00<br>Qty 6+ €70,00 | 3-4 days |
| Laser V-Coat<br>(405nm)  | 12.50 | 3.00 | 405  | <a href="#">#64-038</a> | €87,00<br>Qty 6+ €70,00 | 3-4 days |
| Laser V-Coat<br>(532nm)  | 12.50 | 3.00 | 532  | <a href="#">#49-128</a> | €87,00<br>Qty 6+ €70,00 | 3-4 days |
| Laser V-Coat<br>(633nm)  | 12.50 | 3.00 | 633  | <a href="#">#49-138</a> | €87,00<br>Qty 6+ €70,00 | 3-4 days |
| Laser V-Coat<br>(785nm)  | 12.50 | 3.00 | 785  | <a href="#">#64-048</a> | €87,00<br>Qty 6+ €70,00 | 3-4 days |
| Laser V-Coat<br>(980nm)  | 12.50 | 3.00 | 980  | <a href="#">#83-518</a> | €87,00<br>Qty 6+ €70,00 | 3-4 days |
| Laser V-Coat<br>(1064nm) | 12.50 | 3.00 | 1064 | <a href="#">#49-148</a> | €87,00<br>Qty 6+ €70,00 | 3-4 days |
| Laser V-Coat<br>(1550nm) | 12.50 | 3.00 | 1550 | <a href="#">#83-528</a> | €87,00<br>Qty 6+ €70,00 | 3-4 days |
| Laser V-Coat<br>(405nm)  | 15.00 | 3.00 | 405  | <a href="#">#64-039</a> | €88,50<br>Qty 6+ €71,00 | 3-4 days |
| Laser V-Coat<br>(532nm)  | 15.00 | 3.00 | 532  | <a href="#">#49-129</a> | €88,50<br>Qty 6+ €71,00 | 3-4 days |
| Laser V-Coat<br>(633nm)  | 15.00 | 3.00 | 633  | <a href="#">#49-139</a> | €88,50<br>Qty 6+ €71,00 | 3-4 days |
| Laser V-Coat<br>(785nm)  | 15.00 | 3.00 | 785  | <a href="#">#64-049</a> | €88,50<br>Qty 6+ €71,00 | 3-4 days |
| Laser V-Coat<br>(980nm)  | 15.00 | 3.00 | 980  | <a href="#">#83-519</a> | €88,50<br>Qty 6+ €71,00 | 3-4 days |
| Laser V-Coat<br>(1064nm) | 15.00 | 3.00 | 1064 | <a href="#">#49-149</a> | €88,50<br>Qty 6+ €71,00 | In Stock |
| Laser V-Coat<br>(1550nm) | 15.00 | 3.00 | 1550 | <a href="#">#83-529</a> | €88,50<br>Qty 6+ €71,00 | 3-4 days |

|                          |       |      |      |                         |                          |            |
|--------------------------|-------|------|------|-------------------------|--------------------------|------------|
| Laser V-Coat<br>(405nm)  | 20.00 | 3.00 | 405  | <a href="#">#64-040</a> | €93,50<br>Qty 6+ €75,00  | 3-4 days   |
| Laser V-Coat<br>(532nm)  | 20.00 | 3.00 | 532  | <a href="#">#49-130</a> | €93,50<br>Qty 6+ €75,00  | 3-4 days   |
| Laser V-Coat<br>(633nm)  | 20.00 | 3.00 | 633  | <a href="#">#49-140</a> | €93,50<br>Qty 6+ €75,00  | In Stock   |
| Laser V-Coat<br>(785nm)  | 20.00 | 3.00 | 785  | <a href="#">#64-050</a> | €93,50<br>Qty 6+ €75,00  | In Stock   |
| Laser V-Coat<br>(980nm)  | 20.00 | 3.00 | 980  | <a href="#">#83-520</a> | €93,50<br>Qty 6+ €75,00  | In Stock   |
| Laser V-Coat<br>(1064nm) | 20.00 | 3.00 | 1064 | <a href="#">#49-150</a> | €93,50<br>Qty 6+ €75,00  | 3-4 days   |
| Laser V-Coat<br>(1550nm) | 20.00 | 3.00 | 1550 | <a href="#">#83-530</a> | €93,50<br>Qty 6+ €75,00  | 3-4 days   |
| Laser V-Coat<br>(405nm)  | 25.00 | 4.00 | 405  | <a href="#">#64-041</a> | €102,00<br>Qty 6+ €82,00 | 3-4 days   |
| Laser V-Coat<br>(532nm)  | 25.00 | 4.00 | 532  | <a href="#">#49-131</a> | €102,00<br>Qty 6+ €82,00 | 3-4 days   |
| Laser V-Coat<br>(633nm)  | 25.00 | 4.00 | 633  | <a href="#">#49-141</a> | €102,00<br>Qty 6+ €82,00 | 3-4 days   |
| Laser V-Coat<br>(785nm)  | 25.00 | 4.00 | 785  | <a href="#">#64-051</a> | €102,00<br>Qty 6+ €82,00 | In Stock   |
| Laser V-Coat<br>(980nm)  | 25.00 | 4.00 | 980  | <a href="#">#83-521</a> | €102,00<br>Qty 6+ €82,00 | 3-4 days   |
| Laser V-Coat<br>(1064nm) | 25.00 | 4.00 | 1064 | <a href="#">#49-151</a> | €102,00<br>Qty 6+ €82,00 | In Stock   |
| Laser V-Coat<br>(1550nm) | 25.00 | 4.00 | 1550 | <a href="#">#83-531</a> | €102,00<br>Qty 6+ €82,00 | 3-4 days   |
| Laser V-Coat<br>(405nm)  | 30.00 | 4.00 | 405  | <a href="#">#64-042</a> | €105,00<br>Qty 6+ €84,00 | 3-4 days   |
| Laser V-Coat<br>(532nm)  | 30.00 | 4.00 | 532  | <a href="#">#49-132</a> | €105,00<br>Qty 6+ €84,00 | Contact Us |
| Laser V-Coat<br>(633nm)  | 30.00 | 4.00 | 633  | <a href="#">#49-142</a> | €105,00<br>Qty 6+ €84,00 | In Stock   |
| Laser V-Coat<br>(785nm)  | 30.00 | 4.00 | 785  | <a href="#">#64-052</a> | €105,00<br>Qty 6+ €84,00 | 3-4 days   |
| Laser V-Coat<br>(980nm)  | 30.00 | 4.00 | 980  | <a href="#">#83-522</a> | €105,00<br>Qty 6+ €84,00 | 3-4 days   |

|                          |       |      |      |                         |                          |          |
|--------------------------|-------|------|------|-------------------------|--------------------------|----------|
| Laser V-Coat<br>(1064nm) | 30.00 | 4.00 | 1064 | <a href="#">#49-152</a> | €105,00<br>Qty 6+ €84,00 | 3-4 days |
| Laser V-Coat<br>(1550nm) | 30.00 | 4.00 | 1550 | <a href="#">#83-532</a> | €105,00<br>Qty 6+ €84,00 | 3-4 days |
| Laser V-Coat<br>(405nm)  | 40.00 | 4.00 | 405  | <a href="#">#64-043</a> | €119,00<br>Qty 6+ €95,00 | 3-4 days |
| Laser V-Coat<br>(532nm)  | 40.00 | 4.00 | 532  | <a href="#">#49-133</a> | €119,00<br>Qty 6+ €95,00 | 3-4 days |
| Laser V-Coat<br>(633nm)  | 40.00 | 4.00 | 633  | <a href="#">#49-143</a> | €119,00<br>Qty 6+ €95,00 | In Stock |
| Laser V-Coat<br>(785nm)  | 40.00 | 4.00 | 785  | <a href="#">#64-053</a> | €119,00<br>Qty 6+ €95,00 | 3-4 days |
| Laser V-Coat<br>(980nm)  | 40.00 | 4.00 | 980  | <a href="#">#83-523</a> | €119,00<br>Qty 6+ €95,00 | 3-4 days |
| Laser V-Coat<br>(1064nm) | 40.00 | 4.00 | 1064 | <a href="#">#49-153</a> | €119,00<br>Qty 6+ €95,00 | 3-4 days |
| Laser V-Coat<br>(1550nm) | 40.00 | 4.00 | 1550 | <a href="#">#83-533</a> | €119,00<br>Qty 6+ €95,00 | 3-4 days |
| Laser V-Coat<br>(405nm)  | 50.00 | 4.00 | 405  | <a href="#">#64-044</a> | €123,00<br>Qty 6+ €98,00 | 3-4 days |
| Laser V-Coat<br>(532nm)  | 50.00 | 4.00 | 532  | <a href="#">#49-134</a> | €123,00<br>Qty 6+ €98,00 | In Stock |
| Laser V-Coat<br>(633nm)  | 50.00 | 4.00 | 633  | <a href="#">#49-144</a> | €123,00<br>Qty 6+ €98,00 | 3-4 days |
| Laser V-Coat<br>(785nm)  | 50.00 | 4.00 | 785  | <a href="#">#64-054</a> | €123,00<br>Qty 6+ €98,00 | 3-4 days |
| Laser V-Coat<br>(980nm)  | 50.00 | 4.00 | 980  | <a href="#">#83-524</a> | €123,00<br>Qty 6+ €98,00 | 3-4 days |
| Laser V-Coat<br>(1064nm) | 50.00 | 4.00 | 1064 | <a href="#">#49-154</a> | €123,00<br>Qty 6+ €98,00 | 3-4 days |
| Laser V-Coat<br>(1550nm) | 50.00 | 4.00 | 1550 | <a href="#">#83-534</a> | €123,00<br>Qty 6+ €98,00 | In Stock |

