THE WORLD’S FIRST HYPER Dk/t GP CONTACT LENS
FDA APPROVED FOR UP TO 30 DAYS CONTINUOUS WEAR
Menicon Z is the first GP contact lens to receive FDA approval for up to 30 days continuous wear. The breakthrough hyper Dk/t Menicon Z material surpasses the competition. Menicon Z is the only GP offering extraordinary levels of oxygen transmissibility and excellent physical properties.

**MENICON Z HYPER Dk/t MATERIAL PROVIDES:**

- 30 Days Continuous Wear
- Long-Term Corneal Health
- Superior Stability and Wettability
- Excellent Deposit Resistance
- Clear Vision and Enhanced Comfort

**CONTINUOUS WEAR ZONE**

There are 5 categories of oxygen transmissibility (low, medium, high, super and hyper). The hyper category is also known as the “continuous wear zone”. This is also the best zone for healthy contact lens wear whether for daily wear or continuous wear. Menicon Z is made of an advanced hyper Dk/t material.

**NORMAL CORNEAL EPITHELIAL DESQUAMATION**

Research has shown that contact lenses with low to high oxygen transmissibility still cause hypoxia and lead to abnormal epithelial cell desquamation. Desquamation is the shedding of corneal epithelial cells and appears in the photo as the darker areas without cells. Much more transmissibility has been found to be necessary to insure normal epithelial turnover. With the hyper Dk/t Menicon Z, normal desquamation even in the closed eye condition was observed.

**MINIMAL ADHERENCE OF Pseudomonas aeruginosa**

Lower oxygen lenses, soft or rigid, cause a significant amount of Pseudomonas binding to corneal epithelial cells. This can lead to a greater incidence of keratitis and ulceration. Recent studies have now clearly demonstrated that eyes fitted with lenses of increasing Dk/t values show diminishing amounts of Pseudomonas adherence. Only the Hyper Dk/t Menicon Z demonstrated low adherence levels similar to the control in overnight studies.
**FDA Approved for up to 30 Days Continuous Wear**

**Unique Menicon Z Material**

The unique polymer chemistry results in excellent physical properties, allowing this lens to be made significantly thinner, comparable to a medium Dk/t lens.

- Hyper Oxygen Transmissibility
- Durability
- Stability
- UV Filter
- Thin Design
- Excellent Deposit Resistance

### Physical/Optical Properties

<table>
<thead>
<tr>
<th>Property</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Refractive Index</td>
<td>≈ 1.44</td>
</tr>
<tr>
<td>Light Transmittance</td>
<td>≥ 90% (380 to 780 nm, 0.1 mm sample thickness)</td>
</tr>
<tr>
<td></td>
<td>≤ 5% (210 to 380 nm, 0.1 mm sample thickness)</td>
</tr>
<tr>
<td>Water Absorption</td>
<td>Less than 0.5% by weight (25°C)</td>
</tr>
<tr>
<td>Specific Gravity</td>
<td>1.20 (25°C)</td>
</tr>
<tr>
<td>Oxygen Permeability</td>
<td>$163 \times 10^{-11} \text{ cm}^3 \text{ atm} / \left( \text{mL} \text{ O}_2 / \text{ m} \text{ h} / \text{ mmHg} \right)$ **&lt;sup&gt;1&lt;/sup&gt;</td>
</tr>
<tr>
<td></td>
<td>$180 \times 10^{-11} \text{ cm}^3 \text{ atm} / \left( \text{mL} \text{ O}_2 / \text{ m} \text{ h} / \text{ mmHg} \right)$ **&lt;sup&gt;2&lt;/sup&gt;</td>
</tr>
</tbody>
</table>

<sup>1</sup> Method for determination: ISO 9135:1:1996

<sup>2</sup> Measurement of Dk by the Fatt polarimetric method without edge effect correction

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**Material Strength**

To measure impact strength of GP material, a steel ball (11.9 mm diameter/6.9g) is dropped on a sample lens (0.2mm parallel thickness). The height of the dropped ball is recorded when the lens breaks. The Menicon Z material showed superior impact strength and rigidity compared to lower category GP lenses.

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**Reduced Corneal Swelling**

In a study that demonstrated corneal swelling during overnight lens wear, hyper Dk/t Menicon Z lenses were compared to lenses of lower Dk/t values. The results showed that corneal swelling was the lowest with Menicon Z. Moreover, the results were nearly identical to normal corneal swelling without contact lenses.

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**Comparison of Pseudomonas Adherence**

When the Menicon Z lens was compared to ACUVUE<sup>®</sup>, PureVision<sup>™</sup>, a high Dk/t 7-day EW hydrogel lens, and PureVision<sup>™</sup>, a hyper Dk/t 30-day EW silicone hydrogel lens, Menicon Z showed the least amount of Pseudomonas adherence. Menicon Z demonstrated superb physiologic performance even surpassing the silicone hydrogel lens in this comparison. Whether for daily wear or up to 30 days Continuous Wear, Menicon Z represents a truly superb choice for safety and convenience for your patients.
The choice is now yours. Menicon Z delivers a high standard of convenience and safety for your patients, whether they are candidates for daily wear, occasional extended wear, 7-day extended wear or up to 30 days continuous wear. Approved designs include spherical, aspheric, custom toric and multifocal.

- 30 Days Continuous Wear
- Unique Hyper Dk/t Material
- Superior Stability and Wettability
- Long-Term Corneal Health
- Clear Vision & Enhanced Comfort
- Easy to Fit

### INITIAL BASE CURVE SELECTION (Alpha design)

<table>
<thead>
<tr>
<th>CORNEAL ASTIGMATISM</th>
<th>8.8MM DIAMETER</th>
<th>9.2MM DIAMETER</th>
<th>9.6MM DIAMETER</th>
</tr>
</thead>
<tbody>
<tr>
<td>0 to 0.75 D</td>
<td>on Kflat</td>
<td>0.25 D FTKflat</td>
<td>0.25 D FTKflat</td>
</tr>
<tr>
<td>1.00 to 1.75 D</td>
<td>0.25 D STKflat</td>
<td>on Kflat</td>
<td>0.50 D FTKflat</td>
</tr>
<tr>
<td>2.00 to 2.50 D</td>
<td>0.50 D STKflat</td>
<td>0.25 D STKflat</td>
<td>Recommend toric</td>
</tr>
<tr>
<td>over 2.50 D</td>
<td>Recommend toric</td>
<td>Recommend toric</td>
<td>0.50 D FTKflat</td>
</tr>
</tbody>
</table>

### About Menicon

Menicon Co., Ltd. (www.menicon.com), founded by Mr. Kyoichi Tanaka in 1951, is Japan’s first and largest contact lens manufacturer, and now is represented in over 30 countries. Menicon is a manufacturer dedicated to all areas of soft and GP contact lens related businesses including material development, lens designing, and manufacturing of contact lenses and care solutions. Menicon is a world leader in the development of hyper-Dk GP (Menicon Z).

Menicare GP Lens Care System is recommended for Menicon Z and is an excellent care system for all other GP lenses as well.

Progent is an in-office GP protein remover for professional use only.

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*Intended Use: Menicon Z™ (plano) Aspheric contact lenses are indicated for daily wear or up to 30 days continuous wear. The lenses may be prescribed in spherical and aspheric designs and powers ranging from -25.00 D to +25.00 D for daily wear and -25.00 D to +40.00 D for extended wear. Toric lenses designed to correct up to ±3.00 D of astigmatism and multithread lenses providing up to ±3.00 D of myopic and astigmatic power are available for daily and extended wear.

In addition to the complete fitting found in the Package Insert, the following warnings, precautions, contraindications and side effects are particularly relevant for this device:

**Warnings:** The risk of serious ocular and systemic injury is possible for extended wear as compared to daily wear and significantly increases these risks. The risk among extended wear lens users increases with the number of consecutive days lenses are worn between replacements, beginning with the first overnight use. It is essential that patients follow their doctor's professional instruction and all labeling instructions for proper use of lenses, lens care and lens care products. Eye problems, including corneal ulcers, can develop rapidly and lead to loss of vision. The long-term risk of microbial keratitis has not been determined for this lens. Post marketing studies are in progress.

**Precautions:** All contact lenses must be used with maximum care, particularly among extended wearers. Patients should carefully read the fitting instructions and follow the instructions on the lens care kit. All patients should carefully follow the care instructions on the lens care kit and follow the recommendations determined in the minimum wearing time based upon the individual patient's physiology, allergic response and lens performance in the eye. During the U.S. clinical study, 50% of the 554 eyes dispensed completed the full year of lens wear with average wearing times of 29 days or more for 99.5% of all visits after 1 month, allowing an ongoing study to be completed and no adverse reactions were observed.

**Contraindications:** Individuals should be warned that patients with a history of infections, immunity reactions or eye infections are at risk of vision-threatening ocular conditions and potential need for medical care. Individuals who develop symptoms of infections or irritation or who have corneal conditions, corneal ulcers, corneal abrasions or intolerant to contact lenses should consult a healthcare provider.

**Side Effects:** All contact lenses carry a risk of causing eye infections or infections of the contact lenses used in the presence of a disease or injury around the eye. The lenses are not to be used by patients who have medical conditions which are not compatible with contact lens wear.

* Acuvue is a registered trademark of Johnson & Johnson Vision Care, Inc.
* PureVision is a registered trademark of Bausch & Lomb.

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