

**ADDITIONAL / TAMBAHAN**

**VIAR Weatherseal**

ALWAYS use viar weatherseal when installing roofing screws. Recommended length of screw is 7 to 8cm and should be installed for every wave profile.

SELALU menggunakan Viar weatherseal ketika menginstal sekrup atap. Panjang sekrup yang direkomendasikan adalah 7-8cm. Harus dipasang pada setiap profil gelombang.

- Material** : HDPE with UV Protection.
- Dimensions** : 32mm x 11mm (Diameter x Height).
- Weight** : 2 Gram.
- Maximum Pressure** : 40kg/cm2.
- Recommended Screw** : KNG, #12-24 x 55mm.
- Colour /Warna** : Grey

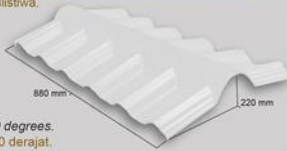


**NOK HOLODECK**

Holodeck Nok is designed to follow the profile of Holodeck roofing with additional guard to prevent leaking in heavy rainfalls. It is flexible and can be used for any sloping angle from 5 to 45 degrees. Using High Quality HDPE material and additives, Holodeck Nok will be able to withstand any extreme climate without cracking.

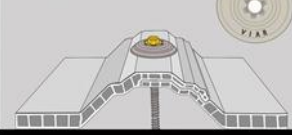
NOK Holodeck dengan desain yang inovatif sesuai dengan profil atap holodeck sehingga tidak menimbulkan bocor. Nok ini fleksibel, dapat digunakan pada sudut 5 sampai 45. Nok Holodeck mampu bertahan lama di bawah sinar matahari ekstrem pada daerah katulistiwa.

- Item** : NOK Holodeck.
- Angle** : 15 Degrees.
- Dimension** : 880 mm x 220 mm.
- Weight** : 1.1 kg/pcs.
- Colour** : White & Blue.
- Direction** : Putih dan Biru
- Direction** : For roofing angle of between 8 - 20 degrees.
- Untuk kemiringan atap antara 8 - 20 derajat.



**HOW TO INSTALL / CARA PEMASANGAN**

**POSISI OVERLAP**



**SEKRUP 7-8cm & VIAR W.**

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**CARA PEMOTONGAN**

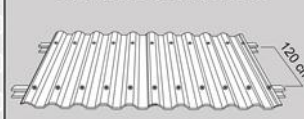


**GRINDA & GERGAJI**

YOU can either use an electric tile cutter or manual hand saw to cut Holodeck to the desired length and then using sand paper to smoothen the edges.

ANDA dapat menggunakan mesin pemotong keramik atau gergaji tangan untuk memotong Holodeck dengan panjang yang diinginkan dan setelah itu bisa di haluskan tepinya dengan amplas.

**JARAK GORDENG**



**POSISI SEKRUP**

THE CORRECT distance between gording should be 120cm when installed as roofing and up to 200cm for cladding / wall.

JARAK GORDENG di rekomendasikan tidak lebih dari 120cm untuk pemasangan atap dan tidak lebih dari 200cm untuk pemasangan pada cladding / dinding.

**JARAK OVERLAP**



**POSISI PEMASANGAN**

HOLODECK ROOFING should be angled at no less than 10° for effective rain water drainage and when overlapping lengthwise, there should be a 40cm overlapping distance as per illustration.

ATAP HOLODECK merekomendasi tingkat kemiringan di atas 10° untuk pengaliran air yang lancar supaya tidak terjadi bocor dan 40cm untuk jarak overlap panjang.

Another Quality Product By :  
PT. Pratama Plastindo Utama



Product By : AVANTGUARD®  
**HOLODECK**  
A.S.A ENHANCED UPVC ROOF



**Bigger.  
Better.  
Stronger.**

WWW.HOLODECK.CO.ID

## ADVANTAGES / KEUNGGULAN

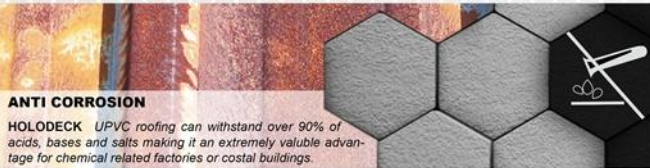
### A.S.A PROTECTION

HOLODECK is a new generation UPVC roof that utilizes Acrylonitrile Styrene Acrylate (A.S.A) coating for a highly improved UV protection, increase heat dissipation, improve color fastness and protects against mould growth.



### SOUND INSULATION

HOLODECK reduces noise transmission due to heavy rainfall by up to 20 decibels as compared to metal roofings therefore creating a comfortable environment for factory workers or home owners.



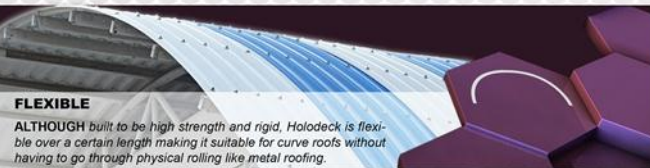
### ANTI CORROSION

HOLODECK UPVC roofing can withstand over 90% of acids, bases and salts making it an extremely valuable advantage for chemical related factories or costal buildings.



### HEAT INSULATION

HOLODECK corrugated design coupled with UPVC material ensures that heat is not transmitted into the building and tests have shown to reduce temperature by up to 5 degrees during noon time. This provides a very comfortable environment for workers in the factories or home owners resting at home.



### FLEXIBLE

ALTHOUGH built to be high strength and rigid, Holodeck is flexible over a certain length making it suitable for curve roofs without having to go through physical rolling like metal roofing.



### NON FLAMMABLE

HOLODECK is non-flammable and will not spread in an unfortunate event of a fire. This guarantees the safety of the rest of the property from fire unlike some roof insulation products that can spread it rapidly.



### HIGH STRENGTH

UTILIZING a larger and higher wave profile and incorporating a corrugated design, Holodeck is the strongest UPVC roofing material in the market.

## EXPLANATION / PENJELASAN

WELCOME to the world of alternative roofing offered by the manufacturer of renowned 3 layer UPVC roof AVANT-GUARD® brand. With our newest product Holodeck, we have gone on to make an established brand even better. Now reinforced with a corrugated design and enhanced with fourth Generation A.S.A coating, Holodeck UPVC roof will withstand nearly all that nature and its temperamental weather will throw at.

Designed for strength, yet flexible Holodeck will Dominate the architectural landscape where style meets functionality. Other benefits of Holodeck include it being non flammable, Chemical resistant as well as it being a thermal insulator. No more worries about designing for environments that are harsh for existing metal roofings and having to add flammable and unhealthy insulation to maintain a cool and comfortable working or living space. Choose Holodeck now for a smart and innovative solution to your roofing needs.

SELAMAT datang ke dunia atap alternatif dari produsen atap UPVC Avantguard® yang sudah terkenal di pasar. Dengan produk baru Holodeck, kami menghasilkan atap yang lebih premium diatas produk yang sudah terkenal dengan kualitas nya. Memanfaatkan desain berikut dan di lindungi dengan lapisan A.S.A generasi ke empat, Holodeck lebih dari mampu melawan cuaca dan iklim yang ekstrem.

Holodeck bukan hanya di desain dengan kekuatan tapi juga punya karakter fleksibilitas yang cocok untuk dunia arsitek yang perlu keseimbangan antara keindahan desain dan kekuatan struktur materi. Kelebihan lain dari holodeck adalah menahan api, tahan terhadap bahan kimia dan sejuk. Sudah tidak perlu lagi khawatir akan kerusakan atap logam di lingkungan korosi / karatan atau mempertimbangkan akan perlunya insulasi yang mudah terbakar dan tidak sehat untuk tempat kerja atau hidup anda. Holodeck adalah solusi yang pintar dan inovatif untuk kebutuhan atap anda.

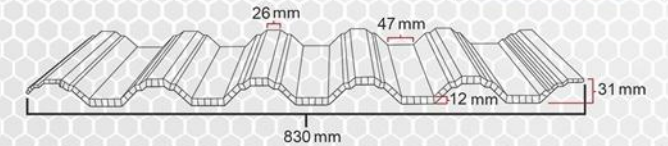


## COMPARATIVE TABLE / TABEL PERBANDINGAN

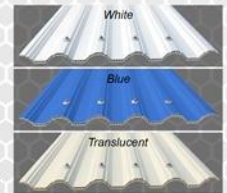
| Comparison Table     | HOLODECK  | ZINCALUME       | FIBERGLASS     | ASBES          | RESULT |
|----------------------|-----------|-----------------|----------------|----------------|--------|
| Strength             | Excellent | Excellent       | Average        | Poor           |        |
| Thermal insulation   | Excellent | Poor            | Excellent      | Poor           |        |
| Sound insulation     | Excellent | Poor            | Average        | Average        |        |
| Corrosion resistance | Excellent | Poor            | Poor           | Good           |        |
| Fire resistance      | Good      | Good            | Poor           | Good           |        |
| Anti-UV properties   | Excellent | Good            | Good           | Poor           |        |
| Colour Fastness      | Excellent | Average         | Good           | Poor           |        |
| Installation Ease    | Good      | Good            | Average        | Poor           |        |
| Curve Roofs          | Excellent | Require rolling | Poor           | Poor           |        |
| Strength & Weight    | Light     | Heavy           | Light          | Heavy          |        |
| Recyclability        | 100%      | 100%            | Not recyclable | Not recyclable |        |
| Shape retention      | Excellent | Excellent       | Poor           | Average        |        |
| Toxicity             | Non toxic | Non toxic       | Mildly toxic   | Highly Toxic   |        |



## SPECIFICATION / SPESIFIKASI



|                      |                   |  |
|----------------------|-------------------|--|
| Standard Length      | Panjang Standar   | : 4, 6, 12 Meter.                              |
| Standard Width       | Lebar Standar     | : 830 mm.                                      |
| Effective Width      | Lebar Efektif     | : 780 mm.                                      |
| CNP Support Distance | Jarak Gordeng CNP | : 120 cm.                                      |
| Weight               | Berat             | : 4.8 Kg/m.                                    |
| Thickness            | Tebal             | : 12 mm.                                       |
| Wave Height          | Tinggi Gelombang  | : 3.1 cm.                                      |
| Curve Radius         | Radius Lekukang   | : R 7  |
| Colour               | Warna             | : White, Blue, Translucent (Semi Transparant). |



## TRANSLUCENT INFO / INFO TEMBUS CAHAYA

Translucent used as skylight in conjunction with Holodeck. From hi-grade transparent roofing UPVC material and enhanced with reinforcing additives. Translucent will last up to 10 times longer than readily available fiberglass and polycarbonate transparent roofing. Benefits include reduced heat transmission, sound proof, mould resistant and anti cracking.

Translucent digunakan untuk penerangan (Skylight) jika digabungkan dengan Holodeck. Terbuat dari material Hi-Grade UPVC dan diperkuat dengan aditif tambahan, Translucent mampu bertahan 10x lebih lama dibandingkan atap Fiberglass / Polycarbonate transparan yang sudah ada. Keunggulannya termasuk mengurangi Transmisi panas, kedap suara, anti lumur dan tahan retak.

## GENERAL PROPERTIES / SPESIFIKASI UMUM

|                                   |  |
|-----------------------------------|--|
| Density                           | 1390 kg/m <sup>3</sup>                 |
| Young's modulus (E)               | 2900-3300 MPa                          |
| Tensile strength(σ <sub>t</sub> ) | 50-80 MPa Elongation (at break 20-40%) |
| Notch test                        | 2.5 kJ/m <sup>2</sup>                  |
| Glass temperature                 | 82 °C                                  |
| Melting point                     | 100-260 °C (Vicat 8.85 °C)             |
| Heat transfer coefficient (λ)     | 0.16 W/(m.K)                           |
| Effective heat of combustion      | 17.95 MJ/kg                            |
| Linear expansion coefficient (α)  | 8 10 <sup>-5</sup> /K                  |
| Specific heat (c)                 | 0.9 kJ/(kg.K)                          |
| Water absorption (ASTM)           | 0.04-0.4                               |

