

# The Science of Head Injury

CONCUSSIONS AND TRAUMATIC BRAIN INJURIES ARE COMMONLY THE RESULT OF ROTATIONAL FORCE AND STRAIN TO THE BRAIN.

Injury statistics demonstrate that when someone trips on a level surface, they are more likely to fall at an angle instead of directly on top of the head. This is due to the forward energy of motion that may extend to the head when hitting the hard ground surface. Over the past few years, science has shown that our brains are very sensitive to rotational forces.

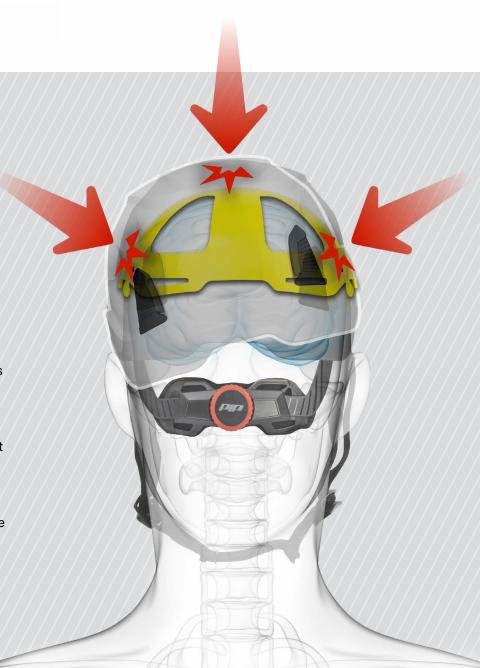
IN THIS SCENARIO, CONVENTIONAL HARD HATS WITHOUT A CHIN STRAP WOULD LIKELY FLY OFF. A CHIN STRAP HELPS, BUT IS IT ENOUGH?



# Introducing Mips® Technology

A LOW FRICTION LAYER DESIGNED TO HELP REDUCE THE SEVERITY OF HEAD INJURIES

- > At impact the Mips® Safety System is designed to help reduce the amount of rotational force transferred to the head by redirecting the forces that are generated by the impact
- The Mips® Safety System allows for a 10-15 mm relative movement between the helmet and the head during the critical first 5-10ms of the impact
- > It is not uncommon that the point load on the head/helmet at impact is at 2,200 lbs. - the Mips® Safety System is designed to allow the helmet to move even under this kind of pressure



# PIP® Traverse™ Safety **Helmet Meets Both:**



AND



Mountaineering **Equipment Standard** 

**Industrial Head** Protection

#### **TYPE II**

3rd Party Certified

#### **Force Transmission**

must be less than an average of 831 lb/ft

## 4 Off Center **Penetration Tests**

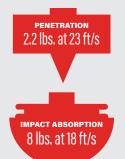
Front, Back and Sides

# **Impact Energy**

not exceed 150g

# **Attenuation**

Maximum attenuation shall



# **Shock Absorbing** Capacity

(Clauses 4.2.1.2; 4.2.1.3; 4.2.1.4) Must be less than 2,248 lb/ft

## **Retention System** Strength

(Clause 4.2.3)

## Effectiveness of the **Retention System**

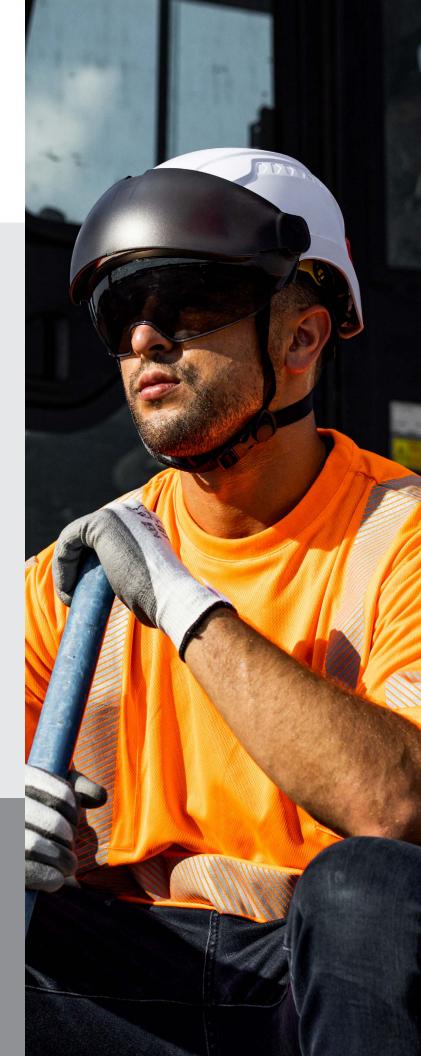
(Clause 4.2.4)







MULTI-DIRECTIONAL **IMPACT PROTECTION** 



# PIP® Traverse™ Safety Helmet - Mips®





# ALSO AVAILABLE IN A VENTED OPTION

### 280-HP1491RVM

Vented Shell

ANSI EN 12492\*

IMPACT TYPE ELECTRICAL CLASS C



### 280-HP1491RM

Non-Vented Shell

- Super lightweight ABS/Polycarbonate shell for wearer comfort
- Low frictional layer designed to reduce rotational motion transferred to the head from angled impacts
- EPS foam impact liner helps absorb the forces of front, side, or rear impacts
- 4-point quick-release suspension for a proper fit
- Sure-lock wheel ratchet for an effortless fit
- Inner padding for added comfort
- Traverse™ specific accessory slots and universal accessory slots on side of safety helmet



| COLORS | Α | VAILABL | .E |               |
|--------|---|---------|----|---------------|
| White  |   | Yellow  |    | Red           |
| Orange |   | Black   |    | Hi-Vis Yellow |

| STYLE NUMBER     | SIZE ADJUSTMENT         | SHELL      | COLOR         | SHELLMATERIAL       | ANSI Z89.1 | EN 12492 | ELECTRICAL CLASS |
|------------------|-------------------------|------------|---------------|---------------------|------------|----------|------------------|
| 280-HP1491RM-01  | Sure-Lock Wheel Ratchet | Non-Vented | White         | ABS / Polycarbonate | Type II    | Yes      | Class E          |
| 280-HP1491RM-02  | Sure-Lock Wheel Ratchet | Non-Vented | Yellow        | ABS / Polycarbonate | Type II    | Yes      | Class E          |
| 280-HP1491RM-03  | Sure-Lock Wheel Ratchet | Non-Vented | Orange        | ABS / Polycarbonate | Type II    | Yes      | Class E          |
| 280-HP1491RM-11  | Sure-Lock Wheel Ratchet | Non-Vented | Black         | ABS / Polycarbonate | Type II    | Yes      | Class E          |
| 280-HP1491RM-15  | Sure-Lock Wheel Ratchet | Non-Vented | Red           | ABS / Polycarbonate | Type II    | Yes      | Class E          |
| 280-HP1491RM-44  | Sure-Lock Wheel Ratchet | Non-Vented | Hi-Vis Yellow | ABS / Polycarbonate | Type II    | Yes      | Class E          |
| 280-HP1491RVM-01 | Sure-Lock Wheel Ratchet | Vented     | White         | ABS / Polycarbonate | Type II    | Yes      | Class C          |
| 280-HP1491RVM-02 | Sure-Lock Wheel Ratchet | Vented     | Yellow        | ABS / Polycarbonate | Type II    | Yes      | Class C          |
| 280-HP1491RVM-03 | Sure-Lock Wheel Ratchet | Vented     | Orange        | ABS / Polycarbonate | Type II    | Yes      | Class C          |
| 280-HP1491RVM-11 | Sure-Lock Wheel Ratchet | Vented     | Black         | ABS / Polycarbonate | Type II    | Yes      | Class C          |
| 280-HP1491RVM-15 | Sure-Lock Wheel Ratchet | Vented     | Red           | ABS / Polycarbonate | Type II    | Yes      | Class C          |
| 280-HP1491RVM-44 | Sure-Lock Wheel Ratchet | Vented     | Hi-Vis Yellow | ABS / Polycarbonate | Туре II    | Yes      | Class C          |



# Custom **Accessory Options**

FOR PIP® TRAVERSE™ SAFETY HELMET

All Accessories Sold Separately

# EYE SHIELD PROTECTOR



## 251-HP1491P

Eye Shield Protector - Smoke

- Protects the eye shield from scratches
- Has a mounting slot on protector to allow headlamp to be worn

# **EYE SHIELD**





## 251-HP1491C

## Eye Shield

- Provides eye protection against hazards
- Scratch resistant and anti-fog

## 251-HP1491G Smoke Gray

| Accessories       |                                    |
|-------------------|------------------------------------|
| STYLE NUMBER      | DESCRIPTION                        |
| 251-HP1491C       | Eye Shield – Clear                 |
| 251-HP1491G       | Eye Shield - Smoke Gray            |
| 251-HP1491P       | Eye Shield Protector - Smoke       |
| 280-HP1491VC      | Vent Covers                        |
| 280-HP1491NS      | Neck Sunshade                      |
| 280-HP1491SUN     | Sun Brim Extension                 |
| 280-HP1491KIT     | Reflective Decal Kit               |
| 280-HP1491BAGD    | Deluxe Storage Bag                 |
| 280-HP1491BAGB    | Basic Storage Bag                  |
| 280-HP1491TAG     | Name Tag Holder                    |
| Replacement Parts |                                    |
| 280-HP1491LCR     | Replacement Lamp Clips – Red       |
| 280-HP1491LCG     | Replacement Lamp Clips – Dark Gray |
| 280-1491CS        | Replacement 4-Point Chinstrap      |
| 280-HP1491PAD     | Replacement Pad Kit                |
| 251-HP1491PC      | Eye Shield Protector Connector     |
|                   |                                    |



# Neck Sunshade

- Provides sun and rain protection for the neck
- Made from hi-vis ripstop material with reflective striping

# REFLECTIVE DECAL KIT



280-HP1491KIT

Reflective Decal Kit - Silver

- Reflective sticker kit for increased visibility at night
- Only available in silver

# **VENT COVERS**



280-HP1491VC

Vent Covers

- Made from TPR
- Close vents on top of helmet to protect against rain

# STORAGE BAGS



#### 280-HP1491BAGB

Basic Storage Bag

- Drawstring bag
- Soft bag to protect against damage during storage and transport  $\,$



#### 280-HP1491BAGD

Deluxe Storage Bag

- Zippered storage bag to easily hang and store product to protect from damage during storage and transport
- Identification label on front of bag

# NAME TAG HOLDER



#### 280-HP1491TAG

Name Tag Holder

- Easy to install plastic name tag holder to allow for quick identification of the worker
- Weather resistant

# REPLACEMENT PARTS



#### 280-HP1491LCR 280-HP1491LCG

Dark Grav

Replacement Lamp Clips

- Pack of 4

Red

- Universal strap holder for head lamp



### 251-HP1491PC

Replacement Eye Shield Protector Connector

- Replacement clips to connect the eye shield to the helmet
- Pack of 2



#### 280-HP1491PAD

Replacement Pad Kit

- 3-piece replacement padding set
- Crown, front and rear padding



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