# Bennetts High Performance Award - Qualification Criteria

(To be read in conjunction with Bennetts Motorcycling Services Limited's Submission Document for the award scheme)

Version 2.0 January 2024

NOTE All questions regarding the application of these criteria and the assessment process should be submitted <u>in writing only</u> to <u>hpa@bennetts.co.uk</u>.

### 1 About the Bennetts High Performance Awards

The Bennetts High Performance Awards highlight and celebrate innovation and safety in motorcyclists' protective clothing and equipment. Using existing European Standards as their basis, the qualification criteria for gloves, footwear and garments provide riders with additional information about the capabilities of these items of apparel, to assist them in making informed purchasing choices.

# Note: Version 2.0 January 2024

Version 2.0 introduces Platinum+ and Diamond+ criteria. Garments meeting the Platinum and Diamond criteria are not required to incorporate chest protection (either as conventional foam impact protectors or an airbag system), but where this is present, garments will designated Platinum+ or Diamond+

# 2 Awards categories

### 2.1 Gloves

Gold Award

Gloves conforming to EN 13594:2015 Level 2 KP qualify for Gold Award status.

#### 2.2 Footwear

Gold Award

Footwear conforming to EN 13634 Level 2 for abrasion resistance, impact cut resistance and transverse rigidity qualifies for Gold Award status.

# 2.3 Garments

Gold Award
Platinum Award
Diamond Award
Platinum+ Award
Diamond+Award

Garments conforming to EN 17092-2:2020 (AAA) qualify for Gold Award status.

Garments conforming to EN 17092-2:2020 plus the Platinum criteria specified in clauses 5.2 to 5.5 of these criteria qualify for Platinum Award status. Garments conforming to EN 13595-1:2003 Level 1 plus all criteria in clause 5.6 (Impact energy absorption) of this document qualify for Platinum Award status.

(Note: Garments meeting the Platinum Award criteria that also incorporate chest protection (either as conventional foam impact protectors or an airbag system) qualify for Platinum+Award status)

Garments conforming to EN 17092-2:2020 plus the Diamond criteria specified in clauses 5.2 to 5.5 of these criteria qualify for Diamond Award status. Garments conforming to EN 13595-1:2003 Level 2 plus all criteria in clause 5.6 (Impact energy absorption) of this document qualify for Diamond Award status.

Note: Garments meeting the Diamond Award criteria that also incorporate chest protection (either as conventional foam impact protectors or an airbag system) qualify for Diamond+Award status)

Additional marking and labelling criteria for Platinum, Platinum +, Diamond and Diamond+ Award are provided in clauses 6 and 7.

# 3 Published standards referenced in the garment criteria

NOTE: The remaining criteria in this document apply <u>only</u> to garments and <u>do not</u> apply to gloves or footwear.

EN 17092-1:2020 EN 17092-2:2020 EN 13595-1:2003 EN 13595-2:2003 EN ISO 13938-1:2019

#### 4 Terms and definitions for garments

The terms and definitions in EN 17092-2: 2020 clause 3 shall apply.

#### 5 Requirements for garments

#### 5.1 General

Garments qualifying for a Bennetts High Performance Award shall fully comply with EN 17092-2:2020, plus for the Platinum, Platinum +, Diamond and Diamond+ awards they shall meet the following additional requirements.

NOTE: Garments conforming to EN 13595-1:2003 Level 1 and Level 2 also qualify for Platinum/Platinum+ and Diamond/Diamond+ awards, respectively, subject to also satisfying the criteria for impact protection in clause 5.6.

# 5.2 Risk category zoning

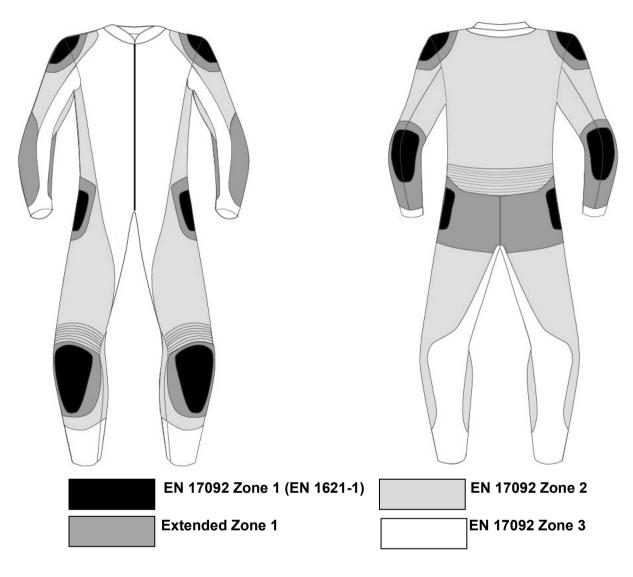
The garment zones referenced in tables 2, 3 and 4 of these criteria shall be as defined in EN 17092-1, with the following deviations:

- a) Extended Zone 1, which is as specified in Table 1 and Figure 1 below;
- b) The lower 50 mm of garment sleeves, measured from the wrist line, and the lower 100 mm of garment legs, measured from the ankle line, where no requirements shall apply.

Table 1, Extended Zone 1 dimensions

		For the largest size of user, the value of the dimension, cm			Minimum value of the dimension of the
Protector and dimension		Chest or under-bust girth	Waist girth	Stature	extended zone 1 area as % of the body dimension
Elbow and	<i>r</i> <sup>1</sup>	<b>~</b>			9.9
forearm	r <sup>2</sup>	<b>~</b>			7.4
	I			~	8.8
Shoulder	r¹	~			8.6
	<b>r</b> <sup>2</sup>	<b>~</b>			4.3
	I	<b>~</b>			7.2
Knee &	r¹		<b>&gt;</b>		11.0
Shin; high boot	r <sup>2</sup>		<b>&gt;</b>		7.2
	I			~	9.2
Knee & Shin; low	r¹		<b>~</b>		11.0
boot	r <sup>2</sup>		<b>~</b>		5.7
	I			~	13.8
Hip	r¹		<b>&gt;</b>		9.5

Figure 1 — Typical example of the final Zone boundaries determined using the procedure for determination and demarcation of risk category zones



#### 5.3 Abrasion resistance

When tested in accordance with EN 13595-2:2003, garments shall meet the abrasion resistance requirements listed in table 2. All layers of materials in the garment that are intended to contribute to abrasion resistance shall be tested together.

NOTE Removable additional lining layers (i.e., those providing thermal or waterproof provision) that are not intended to always be in place during riding, impact protectors or protectors not attached to the other garment layers around their entire perimeters should not be included as part of the abrasion test specimen assembly. However, main linings that are removeable solely for the purpose of laundering and are intended to always be in place during riding may be included as part of the abrasion test specimen assembly.

Table 2: Relative abrasion resistance

Zone	Minimum relative abrasion resistance for the award category		
	Platinum	Diamond	
Extended Zone 1	4.0	7.0	
(Incorporating EN 17092 Zone 1)			
2	1.8	2.5	
3	0.8	1.5	

# 5.4 Tear / burst strength

When tested in accordance with Clause 4.5 of EN 17092-2: 2020 the garment shall meet the increased minimum requirements specified in table 3. In addition, any elasticated and knitted fabrics in the SSL shall be tested in accordance with EN ISO 13938-1:2019 using a 7.3 cm<sup>2</sup> test area and meet the minimum requirements for burst strength as listed in table 3.

Table 3: Tear and burst strength

	Minimum tear / burst strength for the award category				
Zones	Platinum		Diamond		
	Leather/woven fabrics Tear Strength (N)	Knitted/elasticated fabrics Burst Strength (kPa)	Leather/woven fabrics Tear Strength (N)	Knitted/elasticated fabrics Burst Strength (kPa)	
Extended Zone 1 (Incorporating EN 17092 Zone 1)	70	2 100	100	2 400	
2	70	1 500	100	1 800	
3	50	1200	70	1 350	
Linings and protector pocket materials (if present)	10	600	10	600	

# 5.5 Seam and fastener strength

When tested in accordance with the procedure described in Clause 5.2 of EN 17092-1:2020, the strength of the SSS of garments, shall meet the requirements specified in table 4.

NOTE Where a seam joins the materials of two zones, the seam is subject to the higher of the two zone requirements.

Table 4: Seam and fastener strength

	Minimum seam and fastener strength for the award category		
Zones	<b>Platinum</b> (N/mm)	<b>Diamond</b> (N/mm)	
Extended Zone 1 (Incorporating EN 17092 Zone 1)	18	20	
2	13	15	
3	10	12	
Linings and protector pocket materials (if present)	4	4	

# 5.6 Impact energy absorption

#### 5.6.1 General

Impact protectors shall be present in the garment or worn in a separate garment or garments according to table 5.

All impact protectors present in a garment shall meet at least the requirements for Level 2 according to the standards listed in table 5. Pockets intended for impact protectors shall not contain any other items other than impact protectors conforming to the applicable part of EN 1621.

**Table 5: Impact protection requirements** 

		Applicable	See Key below			
Garment	Location	requirements according to Standard (See Notes below)	Platinum	Diamond	Platinum+	Diamond+
One-piece suits	Back	EN 1621-2:2014 FB	R	R	R	R
	Chest	EN 1621-2:2014	0	0	R	R
	Shoulder	EN 1621-1:2012	R	R	R	R
	Elbow	EN 1621-1:2012	R	R	R	R
	Hip	EN 1621-1:2012	R	R	R	R
	Knee or Knee + Leg	EN 1621-1:2012	R	R	R	R
Two-piece suits &	Back	EN 1621-2:2014 FB	R	R	R	R
jackets	Chest	EN 1621-3:2018	0	0	R	R
	Shoulder	EN 1621-1:2012	R	R	R	R
	Elbow	EN 1621-1:2012	R	R	R	R
Two-piece	Hip	EN 1621-1:2012	R	R		
suits & trousers	Knee or Knee + Leg	EN 1621-1:2012	R	R		

Key to Table 5

**R** = Impact protection required

**O** = Impact protection optional.

NOTE 1 Impact protection can also be provided by a separate item or items of garments which should incorporate the impact protection components listed in Table 5.

NOTE 2 Impact protection can be provided by foam-based products/components or airbag systems.

# 5.6.2 Sizing of limb joint impact protectors

Limb joint impact protectors conforming to EN 1621-1 shall be of the minimum sizes specified in table 6, determined by the stipulated end user height and chest girths as detailed in the size marking of the garment into which the protectors are fitted. Where a garment size crosses the control dimensions, the largest size shall determine the EN 1621-1 Type impact protector to be fitted.

Table 6: Limb joint impact protector minimum sizing requirements

Control di	mension	EN 1621-1 Type
Height	<1700 mm	Type A
Chest girth	< 1000 mm	Type A
Height	>1700 mm	Туре В
Chest girth	>1000 mm	Type B

# 6. Marking

Garments fulfilling the requirements of these criteria shall meet the marking requirements of EN 17092-2:2020 clause 5, with the exception of garments conforming to EN 13595-1:2003, which shall meet the marking requirements of clause 9.2 and shall feature the pictogram specified in clause 10 of that standard.

For garments to be worn with a separate item or items providing impact protection, there shall be a warning label that the garment must be worn with an undergarment or overgarment fitted with the minimum mandatory impact protection specified in table 5.

### 7. Information to be supplied to the user - Wearer information and instructions for use

Garments fulfilling the requirements of these criteria shall be supplied with the information specified in EN 17092-2:2020 clause 6 and also the following additional text (garments conforming to EN 13595-1:2003 shall be supplied with the information specified in clause 9.4 of that standard and also the following additional text):

NOTE: It is acceptable for this information to be supplied in a separate document to the statutory user information; for example, an additional booklet, leaflet or swing label.

- the overall Bennetts High Performance Award classification achieved by the garment and the individual classifications achieved in testing against the requirements specified in clauses 5.3 to 5.5.
- information on whether the ankles of suits and trousers are intended to be worn inside or outside footwear;
- instructions for correct operation of garment fastening and restraint systems; including an instruction to ensure that when worn with appropriate gloves and footwear, a suitable fit can be achieved that will prevent the wrist cuff rising up the forearm and the ankle cuff rising up the lower leg so that a gap appears between the gloves/footwear and the cuff which could expose the wearer's skin to contact with the road surface;
- In the case of garments with main linings that are removeable solely for the purpose of laundering and that are intended to always be in place during riding, a warning not to use the garment without this main lining being in place;
- for garments designed to be worn with separate items of clothing fitted with impact protection, a warning that impact protection is not provided by the garment alone and it must be worn with an undergarment or overgarment fitted with a minimum of back, shoulder and elbow protectors for jackets/top half of suits, and hip and knee protectors for trousers/lower half of suits. Manufacturers shall provide details of compatible undergarments or overgarments;
- instruction to replace the garment after any accident unless fitness for use has been confirmed by an inspection by the garment's manufacturer. If the manufacturer offers such inspections, details regarding how the consumer may access such an inspection shall be included, e.g., contact information;
- details of the test facility and certification body involved in the assessment of the garment.