## **R VICIS Zero1 (2018)** Schutt F7 LTD (208400)<sup>1</sup> **Riddell SpeedFlex Precision Diamond (R41106)**<sup>1,2</sup> **Riddell SpeedFlex Precision (R41156)**<sup>2</sup> Schutt Air XP Pro VTD II (789902) Schutt Air XP Pro VTD (789901) Schutt Air XP Pro Q11 (788700)<sup>1</sup> Riddell SpeedFlex 2019 (R41195)<sup>1</sup> Xenith Shadow 2018<sup>1</sup> Schutt F7 VTD (208800)1 Xenith Epic+ Schutt F7 (208000) Xenith X2E+ Schutt Vengeance Pro LTD (204400)<sup>1</sup> Xenith Epic **Riddell Speed (R41190) Schutt Air XP Pro Q10 VTD (788910)**<sup>1</sup> **Riddell Revolution IQ (R41159) Schutt DNA Pro+ (202201)** Schutt Vengeance DCT (204001) Schutt Vengeance Z10 LTD (204200)<sup>1</sup> **Riddell Speed Icon (R41197)** Xenith X2E



2019 HELMET LABORATORY TESTING PERFORMANCE RESULTS

THE NFL, IN COLLABORATION WITH THE NFLPA, THROUGH THEIR RESPECTIVE APPOINTED BIOMECHANICAL EXPERTS, COORDINATED EXTENSIVE LABORATORY RESEARCH TO EVALUATE WHICH HELMETS BEST REDUCE HEAD IMPACT SEVERITY. THE RESULTS OF THOSE TESTS, WHICH ARE SUPPORTED BY ON-FIELD PERFORMANCE, ARE SET

**BORATORY PERFORMANCE** 

Riddell Foundation (R41179)	
Riddell Revolution Speed Classic (R41167)	
Riddell Speed Classic Icon (R41198)	
Schutt Vengeance VTD (204800)	
Riddell SpeedFlex 2017 (R41195)	
Schutt Vengeance Z10 (204101)	
Schutt Vengeance VTD II (204801)	
Schutt Air XP Pro Q10 (788900)	
Schutt Vengeance Pro (204301)	
Riddell Revolution (R41139)	
Schutt Vengeance Pro (204300)	

## **Prohibited Helmets<sup>3</sup>**

Rawlings Impulse	Schutt Air Advantage	
Rawlings Impulse+	Schutt Air XP	
Rawlings Tachyon	Schutt Air XP Pro	
Rawlings Quantum	Schutt Vengeance Z10 (204100)	
Rawlings Quantum+	SG Varsity	
Riddell VSR-4	SG 2.0	

## 'New model

<sup>2</sup>Results shown are for a helmet with interior padding customized for the testing headform. Actual performance and ranking may vary since these helmets are customized for each player's head shape.

<sup>3</sup>These helmets have been prohibited for all NFL players.

The SG DBS-001 was tested but not ranked because damage to the chinstrap attachment hardware at even the lowest test speed suggested that the helmet may not be able to withstand the rigors of NFL practices and games.

Note: Existing models worn by less than 1% of NFL players are greyed out.

## FORTH ON THIS POSTER.

The helmet models are listed in order of their performance in the laboratory testing, with a shorter bar representing better performance. The rankings are based exclusively on the ability of the helmet to reduce head impact severity measures in laboratory testing. Issues with helmet fit, retention, and long-term durability are not addressed in these rankings. Helmets in the **Top-Performing Group perform** well, with no statistical difference in performance from the three top-ranked helmets. The information presented here is based solely upon the results of this research and the expert opinions of the scientists involved.

The laboratory test conditions were intended to represent potentially concussive head impacts in the NFL. The results of this study should not be extrapolated to collegiate, high school, or youth football.