

## SRIS + Black APA

- Gravity **15 BLG**
- ABV **6.2 %**
- IBU **21**
- SRM **87.8**
- Style **Russian Imperial Stout**

### Batch size

- Expected quantity of finished beer **30 liter(s)**
- Trub loss **5 %**
- Size with trub loss **31.5 liter(s)**
- Boil time **60 min**
- Evaporation rate **4 %/h**
- Boil size **33.4 liter(s)**

### Mash information

- Mash efficiency **20 %**
- Liquor-to-grist ratio **2.6 liter(s) / kg**
- Mash size **28.6 liter(s)**
- Total mash volume **39.6 liter(s)**

### Steps

- Temp **64 C**, Time **75 min**
- Temp **72 C**, Time **15 min**
- Temp **78 C**, Time **10 min**

### Mash step by step

- Heat up **28.6 liter(s)** of strike water to **72.5C**
- Add grains
- Keep mash **75 min** at **64C**
- Keep mash **15 min** at **72C**
- Keep mash **10 min** at **78C**
- Sparge using **15.8 liter(s)** of **76C** water or to achieve **33.4 liter(s)** of wort

### Fermentables

Type	Name	Amount	Yield	EBC
Grain	Viking Pale Ale malt	6 kg (41.1%)	80 %	5
Grain	Strzegom Monachijski typ I	1 kg (6.8%)	79 %	16
Grain	Viking Malt Żytńi	1 kg (6.8%)	85 %	8
Grain	Karmelowy Jasny 150EBC	0.5 kg (3.4%)	75 %	150
Grain	Czekoladowy jasny	0.5 kg (3.4%)	68 %	400
Grain	Czekoladowy ciemny	0.5 kg (3.4%)	68 %	800
Grain	Jęczmień prażony	0.5 kg (3.4%)	55 %	985
Grain	Pszenica prażona	0.5 kg (3.4%)	55 %	1000
Grain	Płatki owsiane	0.5 kg (3.4%)	85 %	3
Liquid Extract	ekstrakt słodowy ciemny	2.4 kg (16.4%)	90 %	600
Liquid Extract	ekstrakt słodowy żytni	1.2 kg (8.2%)	90 %	600
Sugar	Milk Sugar (Lactose)	0 kg	76.1 %	0

### Hops

Use for	Name	Amount	Time	Alpha acid
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Boil	Columbus/Tomahawk/Zeus	12 g	45 min	16.1 %
Aroma (end of boil)	Centennial	10 g	10 min	10.5 %
Aroma (end of boil)	Amarillo	10 g	10 min	7.3 %
Aroma (end of boil)	Citra	10 g	10 min	12 %
Aroma (end of boil)	Centennial / Amarillo / Citra	15 g	1 min	10 %
Whirlpool	Centennial / Amarillo / Citra	15 g	1 min	10 %
Dry Hop	20 g Centennial / 30 g Amarillo / 30 g Citra / 20 g Equinox	100 g	3 day(s)	8 %

## Yeasts

Name	Type	Form	Amount	Laboratory
US-05	Ale	Slant	500 ml	Safale

## Notes

- 25l Sweet RIS o BLG 18  
 Chmielonej 40g lunga + 30 g Marynka na 45 minut  
 a potem 10 g iunga + 20 g Marynka na 10 minut  
 Start 5 lipca  
 20.07 dodano 0,5 kg laktozy  
 25.07 dodano 122 gram cukru, który rozrobiono w 554 ml wody i zabutelkowano  
  
 30l Black APA o BLG 14  
 Columbus/Tomahawk/Zeus 12g na 45 minut  
 Centennial / Amarillo / Citra 30 g na 10 minut  
 Centennial / Amarillo / Citra 15 g na 1 minut  
 Centennial / Amarillo / Citra 15 g na whirlpool  
 Start 5 lipca  
 20.07.2020 20 g Centennial / 30 g Amarillo / 30 g Citra / 20 g Equinox na zimno dodano  
 25.07.2020 dodano 170 gram cukru rozrobionego w 1043 ml wody i zabutelkowano  
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