

## RIS Warka #18

- Gravity **25.9 BLG**
- ABV **12.2 %**
- IBU **79**
- SRM **50.2**

### Batch size

- Expected quantity of finished beer **15 liter(s)**
- Trub loss **5 %**
- Size with trub loss **15.8 liter(s)**
- Boil time **80 min**
- Evaporation rate **10 %/h**
- Boil size **19.6 liter(s)**

### Mash information

- Mash efficiency **75 %**
- Liquor-to-grist ratio **2.5 liter(s) / kg**
- Mash size **21 liter(s)**
- Total mash volume **29.4 liter(s)**

### Steps

- Temp **63 C**, Time **75 min**

### Mash step by step

- Heat up **21 liter(s)** of strike water to **71.6C**
- Add grains
- Keep mash **75 min** at **63C**
- Sparge using **7 liter(s)** of **76C** water or to achieve **19.6 liter(s)** of wort

### Fermentables

Type	Name	Amount	Yield	EBC
Grain	Viking Pale Ale malt	5 kg (59.5%)	80 %	5
Grain	Słód owsiany Fawcett	0.5 kg (6%)	61 %	5
Grain	Wheat, Torrified	0.5 kg (6%)	79 %	4
Grain	Płatki owsiane	0.6 kg (7.1%)	85 %	3
Grain	Płatki pszeniczne	0.6 kg (7.1%)	85 %	3
Grain	Special B Castle	0.25 kg (3%)	70 %	350
Grain	Czekoladowy	0.25 kg (3%)	60 %	788
Grain	Fawcett - Pszeniczny Czekoladowy	0.25 kg (3%)	73 %	1001
Grain	Fawcett - Pale Chocolate	0.25 kg (3%)	71 %	600
Grain	Carafa III	0.1 kg (1.2%)	70 %	1034
Grain	Jęczmień palony	0.1 kg (1.2%)	55 %	985

### Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Warrior	56 g	60 min	15.5 %
Aroma (end of boil)	East Kent Goldings	50 g	5 min	5.1 %

### Yeasts

<b>Name</b>	<b>Type</b>	<b>Form</b>	<b>Amount</b>	<b>Laboratory</b>
FM13 Irlandzkie Ciemności	Ale	Slant	1000 ml	Fermentum Mobile

### **Extras**

<b>Type</b>	<b>Name</b>	<b>Amount</b>	<b>Use for</b>	<b>Time</b>
Spice	Ziarna Kakaowca	100 g	Secondary	14 day(s)