

## ROS wg Palmera

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- Gravity **21.6 BLG**
- ABV **9.7 %**
- IBU **72**
- SRM **63.9**

### Batch size

- Expected quantity of finished beer **19.8 liter(s)**
- Trub loss **5 %**
- Size with trub loss **20.8 liter(s)**
- Boil time **90 min**
- Evaporation rate **15 %/h**
- Boil size **27.9 liter(s)**

### Mash information

- Mash efficiency **70 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **29.5 liter(s)**
- Total mash volume **39.4 liter(s)**

### Steps

- Temp **66 C**, Time **90 min**

### Mash step by step

- Heat up **29.5 liter(s)** of strike water to **73.7C**
- Add grains
- Keep mash **90 min** at **66C**
- Sparge using **8.3 liter(s)** of **76C** water or to achieve **27.9 liter(s)** of wort

### Fermentables

Type	Name	Amount	Yield	EBC
Grain	Viking Pale Ale malt	7 kg (71.1%)	80 %	5
Grain	Jęczmień palony	0.9 kg (9.1%)	55 %	985
Grain	Płatki owsiane	0.45 kg (4.6%)	60 %	3
Grain	Strzegom Czekoladowy ciemny	0.5 kg (5.1%)	68 %	1200
Grain	Viking Malt Wędzony Czereśnią	0.5 kg (5.1%)	82 %	10
Grain	Caraaroma	0.5 kg (5.1%)	78 %	400

### Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Citra	40 g	60 min	13.2 %
Boil	Citra	30 g	30 min	13.2 %
Whirlpool	Citra	30 g	15 min	13.2 %