

# RIS

- Gravity **28.1 BLG**
- ABV **13.6 %**
- IBU **99**
- SRM **75.6**

## Batch size

- Expected quantity of finished beer **15 liter(s)**
- Trub loss **5 %**
- Size with trub loss **15.8 liter(s)**
- Boil time **90 min**
- Evaporation rate **10 %/h**
- Boil size **19.9 liter(s)**

## Mash information

- Mash efficiency **55 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **37.2 liter(s)**
- Total mash volume **49.6 liter(s)**

## Steps

- Temp **68 C**, Time **40 min**
- Temp **72 C**, Time **10 min**

## Mash step by step

- Heat up **37.2 liter(s)** of strike water to **76C**
- Add grains
- Keep mash **40 min** at **68C**
- Keep mash **10 min** at **72C**
- Sparge using **-4.9 liter(s)** of **76C** water or to achieve **19.9 liter(s)** of wort

## Fermentables

Type	Name	Amount	Yield	EBC
Grain	Viking Pale Ale malt	8 kg (64.5%)	80 %	5
Grain	Strzegom Monachijski typ II	3 kg (24.2%)	79 %	22
Grain	Strzegom Czekoladowy ciemny	0.5 kg (4%)	68 %	1200
Grain	Carafa Special II	0.7 kg (5.6%)	70 %	1100
Grain	Jęczmień palony	0.2 kg (1.6%)	55 %	985

## Hops

Use for	Name	Amount	Time	Alpha acid
Boil	lunga	100 g	60 min	11 %
Boil	lunga	30 g	15 min	11 %

## Notes

- Zasyt zacierany na dwa razy. Przy zacieraniu drugiej części dodać słody palone (na ostatnie 10 min - dodane podczas podgrzewania z 72 do 78 stopni).  
Drożdże US-05 - gęstwa.  
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