

## PS 1

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- Gravity **12.6 BLG**
- ABV **5.1 %**
- IBU **21**
- SRM **37.8**
- Style **Irish Red Ale**

### Batch size

- Expected quantity of finished beer **20 liter(s)**
- Trub loss **5 %**
- Size with trub loss **21 liter(s)**
- Boil time **50 min**
- Evaporation rate **10 %/h**
- Boil size **24.9 liter(s)**

### Mash information

- Mash efficiency **70 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **17.1 liter(s)**
- Total mash volume **22.8 liter(s)**

### Steps

- Temp **50 C**, Time **30 min**
- Temp **64 C**, Time **75 min**
- Temp **75 C**, Time **10 min**

### Mash step by step

- Heat up **17.1 liter(s)** of strike water to **55C**
- Add grains
- Keep mash **30 min** at **50C**
- Keep mash **75 min** at **64C**
- Keep mash **10 min** at **75C**
- Sparge using **13.5 liter(s)** of **76C** water or to achieve **24.9 liter(s)** of wort

### Fermentables

Type	Name	Amount	Yield	EBC
Grain	Viking Pale Ale malt	3 kg (52.6%)	80 %	5
Nie wiem czy to na 100%slod viking				
Grain	Pilzneński	1 kg (17.5%)	81 %	4
Grain	Strzegom Wiedeński	0.5 kg (8.8%)	79 %	10
Grain	Strzegom Bursztynowy	0.3 kg (5.3%)	70 %	49
Grain	Strzegom Karmel 600	0.3 kg (5.3%)	68 %	601
Grain	Jęczmień palony	0.6 kg (10.5%)	55 %	985

### Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Challenger	25 g	45 min	7 %
Boil	Challenger	25 g	5 min	7 %

### Yeasts

Name	Type	Form	Amount	Laboratory
Safale S-04	Ale	Dry	11.5 g	Safale