

## port

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- Gravity **15.7 BLG**
- ABV **6.6 %**
- IBU **21**
- SRM **29.5**
- Style **Baltic Porter**

### Batch size

- Expected quantity of finished beer **15 liter(s)**
- Trub loss **5 %**
- Size with trub loss **15.8 liter(s)**
- Boil time **60 min**
- Evaporation rate **10 %/h**
- Boil size **19 liter(s)**

### Mash information

- Mash efficiency **75 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **14.7 liter(s)**
- Total mash volume **19.6 liter(s)**

### Steps

- Temp **50 C**, Time **10 min**
- Temp **68 C**, Time **60 min**
- Temp **72 C**, Time **5 min**
- Temp **78 C**, Time **10 min**

### Mash step by step

- Heat up **14.7 liter(s)** of strike water to **55C**
- Add grains
- Keep mash **10 min** at **50C**
- Keep mash **60 min** at **68C**
- Keep mash **5 min** at **72C**
- Keep mash **10 min** at **78C**
- Sparge using **9.2 liter(s)** of **76C** water or to achieve **19 liter(s)** of wort

### Fermentables

Type	Name	Amount	Yield	EBC
Grain	Strzegom Monachijski typ II	3.6 kg (73.5%)	79 %	22
Grain	Strzegom Karmel 600	0.3 kg (6.1%)	68 %	601
Grain	Viking Wędzony torfem	0.4 kg (8.2%)	81 %	7
Grain	Viking Melanoidynowy	0.5 kg (10.2%)	75 %	80
Grain	Strzegom Czekoladowy ciemny	0.1 kg (2%)	68 %	1200

### Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Marynka	15 g	60 min	10 %
Boil	tomyski	10 g	15 min	3 %

### Yeasts

Name	Type	Form	Amount	Laboratory
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Safale US-05	Ale	Dry	10 g	Fermentis
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