

Port am

- Gravity **28.3 BLG**
- ABV **13.7 %**
- IBU **50**
- SRM **40.9**
- Style **Baltic Porter**

Batch size

- Expected quantity of finished beer **24 liter(s)**
- Trub loss **5 %**
- Size with trub loss **25.2 liter(s)**
- Boil time **60 min**
- Evaporation rate **10 %/h**
- Boil size **30.4 liter(s)**

Mash information

- Mash efficiency **75 %**
- Liquor-to-grist ratio **2 liter(s) / kg**
- Mash size **29.1 liter(s)**
- Total mash volume **43.7 liter(s)**

Steps

- Temp **52 C**, Time **10 min**
- Temp **65 C**, Time **40 min**
- Temp **72 C**, Time **30 min**
- Temp **78 C**, Time **10 min**

Mash step by step

- Heat up **29.1 liter(s)** of strike water to **60C**
- Add grains
- Keep mash **10 min** at **52C**
- Keep mash **40 min** at **65C**
- Keep mash **30 min** at **72C**
- Keep mash **10 min** at **78C**
- Sparge using **15.9 liter(s)** of **76C** water or to achieve **30.4 liter(s)** of wort

Fermentables

Type	Name	Amount	Yield	EBC
Grain	Monachijski	5 kg (34.4%)	80 %	16
Grain	Strzegom Wiedeński	4.5 kg (30.9%)	79 %	10
Grain	Pilzneński	1 kg (6.9%)	81 %	4
Grain	Caramunich	0.5 kg (3.4%)	--- %	100
Grain	Caraaroma	0.5 kg (3.4%)	78 %	350
Grain	Pszeniczny ciemny	0.8 kg (5.5%)	85 %	18
Grain	Barley, Flaked	0.8 kg (5.5%)	70 %	4
Grain	Strzegom Czekoladowy jasny	0.2 kg (1.4%)	68 %	400
Grain	Kawowy	0.25 kg (1.7%)	--- %	250
Grain	Carafa	0.1 kg (0.7%)	70 %	664
Grain	Weyermann - Carafa I	0.15 kg (1%)	70 %	690
Grain	Carafa III	0.15 kg (1%)	70 %	1034
Grain	Jęczmień palony	0.15 kg (1%)	55 %	1000
Grain	Special x	0.25 kg (1.7%)	--- %	350

Grain	Płatki żytnie	0.2 kg (1.4%)	70 %	8
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Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Eureka!	30 g	60 min	18 %
Boil	Mosaic	10 g	25 min	12 %
Boil	ADHA 572	10 g	25 min	13.4 %
Boil	Azacca	10 g	25 min	14 %
Boil	Mosaic	10 g	5 min	12 %
Boil	ADHA 572	10 g	5 min	13.4 %
Boil	Azacca	10 g	5 min	14 %
Boil	El Dorado	10 g	25 min	15 %
Boil	El Dorado	10 g	5 min	15 %

Yeasts

Name	Type	Form	Amount	Laboratory
Saflager W 34/70	Lager	Slant	300 ml	Fermentis