

Powstaniec

- Gravity **12.7 BLG**
- ABV ---
- IBU **13**
- SRM **10.5**
- Style **Oktoberfest/Märzen**

Batch size

- Expected quantity of finished beer **22 liter(s)**
- Trub loss **10 %**
- Size with trub loss **24.2 liter(s)**
- Boil time **90 min**
- Evaporation rate **15 %/h**
- Boil size **29.6 liter(s)**

Mash information

- Mash efficiency **75 %**
- Liquor-to-grist ratio **3.5 liter(s) / kg**
- Mash size **18.9 liter(s)**
- Total mash volume **24.3 liter(s)**

Steps

- Temp **50 C**, Time **30 min**
- Temp **66 C**, Time **60 min**
- Temp **78 C**, Time **2 min**

Mash step by step

- Heat up **18.9 liter(s)** of strike water to **54.3C**
- Add grains
- Keep mash **30 min** at **50C**
- Keep mash **60 min** at **66C**
- Keep mash **2 min** at **78C**
- Sparge using **16.1 liter(s)** of **76C** water or to achieve **29.6 liter(s)** of wort

Fermentables

Type	Name	Amount	Yield	EBC
Grain	Strzegom Wiedeński	2.8 kg (51.9%)	79 %	10
Grain	Strzegom Monachijski typ I	2.4 kg (44.4%)	79 %	16
Grain	weyermann caramunch	0.2 kg (3.7%)	79 %	80

Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Herbsbrucker selekt	25 g	75 min	3.4 %
Boil	Herbsbrucker selekt	55 g	5 min	3.4 %

Yeasts

Name	Type	Form	Amount	Laboratory
FM31 Bawarska Dolina	Lager	Liquid	200 ml	Fermentum Mobile