

prawie jak marcowe

- Gravity **12.4 BLG**
- ABV ---
- IBU **26**
- SRM **11.2**
- Style **Oktoberfest/Märzen**

Batch size

- Expected quantity of finished beer **20 liter(s)**
- Trub loss **5 %**
- Size with trub loss **21 liter(s)**
- Boil time **90 min**
- Evaporation rate **10 %/h**
- Boil size **26.4 liter(s)**

Mash information

- Mash efficiency **75 %**
- Liquor-to-grist ratio **3.5 liter(s) / kg**
- Mash size **15.9 liter(s)**
- Total mash volume **20.5 liter(s)**

Steps

- Temp **52 C**, Time **10 min**
- Temp **63 C**, Time **15 min**
- Temp **72 C**, Time **30 min**
- Temp **78 C**, Time **10 min**

Mash step by step

- Heat up **15.9 liter(s)** of strike water to **56.6C**
- Add grains
- Keep mash **10 min** at **52C**
- Keep mash **15 min** at **63C**
- Keep mash **30 min** at **72C**
- Keep mash **10 min** at **78C**
- Sparge using **15.1 liter(s)** of **76C** water or to achieve **26.4 liter(s)** of wort

Fermentables

Type	Name	Amount	Yield	EBC
Grain	Briess - Pilsen Malt	1.2 kg (26.4%)	80.5 %	2
Grain	Monachijski	2.45 kg (53.8%)	80 %	16
Grain	Strzegom Karmel 150	0.5 kg (11%)	75 %	150
Grain	Strzegom Wiedeński	0.4 kg (8.8%)	79 %	10

Hops

Use for	Name	Amount	Time	Alpha acid
Boil	hallertauer taurus	15 g	60 min	14 %
Boil	Hallertau	10 g	5 min	4.5 %

Yeasts

Name	Type	Form	Amount	Laboratory
Danstar - Nottingham	Ale	Dry	12 g	Danstar