

Zadymolony

- Gravity **13.8 BLG**
- ABV **5.7 %**
- IBU **20**
- SRM **8.9**
- Style **Oktoberfest/Märzen**

Batch size

- Expected quantity of finished beer **21 liter(s)**
- Trub loss **5 %**
- Size with trub loss **22.1 liter(s)**
- Boil time **60 min**
- Evaporation rate **10 %/h**
- Boil size **26.5 liter(s)**

Mash information

- Mash efficiency **70 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **18.8 liter(s)**
- Total mash volume **25 liter(s)**

Steps

- Temp **51 C**, Time **5 min**
- Temp **64 C**, Time **10 min**
- Temp **72 C**, Time **70 min**
- Temp **78 C**, Time **10 min**

Mash step by step

- Heat up **18.8 liter(s)** of strike water to **56.2C**
- Add grains
- Keep mash **5 min** at **51C**
- Keep mash **10 min** at **64C**
- Keep mash **70 min** at **72C**
- Keep mash **10 min** at **78C**
- Sparge using **14 liter(s)** of **76C** water or to achieve **26.5 liter(s)** of wort

Fermentables

Type	Name	Amount	Yield	EBC
Grain	Monachijski	3 kg (48%)	80 %	16
Grain	Strzegom Wiedeński	0.6 kg (9.6%)	79 %	10
Grain	Best smoked Malt	2 kg (32%)	80.5 %	10
Grain	Caramunich® typ I	0.15 kg (2.4%)	73 %	80
Grain	Smoked Malt steinbach	0.5 kg (8%)	80 %	18

Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Spalt	30 g	60 min	6 %
Boil	Spalt	10 g	10 min	5.5 %