

Jasne wędzone

- Gravity **13.3 BLG**
- ABV **5.5 %**
- IBU **22**
- SRM **4.3**
- Style **Grodziskie/Graetzer**

Batch size

- Expected quantity of finished beer **21 liter(s)**
- Trub loss **10 %**
- Size with trub loss **23.1 liter(s)**
- Boil time **45 min**
- Evaporation rate **10 %/h**
- Boil size **27.1 liter(s)**

Mash information

- Mash efficiency **85 %**
- Liquor-to-grist ratio **5 liter(s) / kg**
- Mash size **25.5 liter(s)**
- Total mash volume **30.6 liter(s)**

Steps

- Temp **66 C**, Time **45 min**
- Temp **72 C**, Time **15 min**
- Temp **78 C**, Time **5 min**

Mash step by step

- Heat up **25.5 liter(s)** of strike water to **70.6C**
- Add grains
- Keep mash **45 min** at **66C**
- Keep mash **15 min** at **72C**
- Keep mash **5 min** at **78C**
- Sparge using **6.7 liter(s)** of **76C** water or to achieve **27.1 liter(s)** of wort

Fermentables

Type	Name	Amount	Yield	EBC
Grain	Weyermann - Smoked Malt	2 kg (39.2%)	81 %	6
Grain	Briess - Pilsen Malt	2 kg (39.2%)	80.5 %	2
Grain	Vienna Malt	0.5 kg (9.8%)	78 %	8
Grain	Strzegom Monachijski typ I	0.5 kg (9.8%)	79 %	16
Grain	Cara Blonde - Castle Malting	0.1 kg (2%)	78 %	20

Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Columbus/Tomahawk/Zeus	15 g	45 min	15.5 %
Aroma (end of boil)	Tomyski	25 g	5 min	2.8 %

Yeasts

Name	Type	Form	Amount	Laboratory
Lutra OYL-071	Ale	Slant	100 ml	Omega