Jasielski Full

- Gravity **12.1 BLG**
- ABV **---**
- IBU **41**
- SRM **9.9**
- Style **German Pilsner (Pils)**

Batch size

- Expected quantity of finished beer **20 liter(s)**
- Trub loss **5 %**
- Size with trub loss **21 liter(s)**
- Boil time **60 min**
- Evaporation rate **10 %/h**
- Boil size **25.3 liter(s)**

Mash information

- Mash efficiency **80 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **12.6 liter(s)**
- Total mash volume **16.8 liter(s)**

Steps

- Temp **55 C**, Time **1 min**
- Temp **64 C**, Time **15 min**
- Temp **72 C**, Time **45 min**
- Temp **78 C**, Time **1 min**

Mash step by step

- Heat up **12.6 liter(s)** of strike water to **60.8C**
- Add grains
- Keep mash **1 min** at **55C**
- Keep mash **15 min** at **64C**
- Keep mash **45 min** at **72C**
- Keep mash **1 min** at **78C**
- Sparge using **16.9 liter(s)** of **76C** water or to achieve **25.3 liter(s)** of wort

Fermentables

Type	Name	Amount	Yield	EBC
Grain	Strzegom Pilzneński	2.5 kg *(59.5%)*	80 %	4
Grain	Strzegom Monachijski typ II	1 kg *(23.8%)*	79 %	22
Grain	Strzegom Pale Ale	0.5 kg *(11.9%)*	79 %	6
Grain	Strzegom Karmel 150	0.2 kg *(4.8%)*	75 %	150

Hops

Use for	Name	Amount	Time	Alpha acid
Boil	lunga	20 g	60 min	10.8 %
Boil	Saaz (Czech Republic)	40 g	20 min	2.9 %
Boil	Saaz (Czech Republic)	30 g	15 min	2.9 %
Boil	Saaz (Czech Republic)	30 g	0 min	2.9 %

Yeasts

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

Extras

Type	Name	Amount	Use for	Time
Fining	Mech rlandzki	5 g	Boil	15 min