

Dusza Janusza.

- Gravity **12.1 BLG**
- ABV **4.9 %**
- IBU **23**
- SRM **8.8**
- Style **Oktoberfest/Märzen**

Batch size

- Expected quantity of finished beer **18 liter(s)**
- Trub loss **5 %**
- Size with trub loss **19.8 liter(s)**
- Boil time **60 min**
- Evaporation rate **10 %/h**
- Boil size **25.7 liter(s)**

Mash information

- Mash efficiency **75 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **15 liter(s)**
- Total mash volume **20 liter(s)**

Steps

- Temp **55 C**, Time **20 min**
- Temp **62 C**, Time **30 min**
- Temp **73 C**, Time **45 min**
- Temp **77 C**, Time **10 min**

Mash step by step

- Heat up **15 liter(s)** of strike water to **60.8C**
- Add grains
- Keep mash **20 min** at **55C**
- Keep mash **30 min** at **62C**
- Keep mash **45 min** at **73C**
- Keep mash **10 min** at **77C**
- Sparge using **15.7 liter(s)** of **76C** water or to achieve **25.7 liter(s)** of wort

Fermentables

Type	Name	Amount	Yield	EBC
Grain	Weyermann - Bohemian Pilsner Malt	2.5 kg (50%)	81 %	3.3
Grain	Weyermann - Munich Malt type 2	2 kg (40%)	77 %	16.7
Grain	Caramunich® typ I	0.5 kg (10%)	73 %	100.5

Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Oktawia	15 g	60 min	7.8 %
Boil	Oktawia	20 g	20 min	7.8 %

Yeasts

Name	Type	Form	Amount	Laboratory
Saflager W 34/70	Lager	Dry	22 g	Fermentis

Extras

Type	Name	Amount	Use for	Time
------	------	--------	---------	------

Fining	Mech irlandzki	8 g	Boil	10 min
--------	----------------	-----	------	--------