

Maryna

- Gravity **16.4 BLG**
- ABV ---
- IBU **81**
- SRM **6.3**

Batch size

- Expected quantity of finished beer **21 liter(s)**
- Trub loss **1 %**
- Size with trub loss **21.2 liter(s)**
- Boil time **60 min**
- Evaporation rate **20 %/h**
- Boil size **25.4 liter(s)**

Mash information

- Mash efficiency **80 %**
- Liquor-to-grist ratio **3.3 liter(s) / kg**
- Mash size **18.5 liter(s)**
- Total mash volume **24.1 liter(s)**

Steps

- Temp **44 C**, Time **0 min**
- Temp **53 C**, Time **10 min**
- Temp **62 C**, Time **30 min**
- Temp **72 C**, Time **30 min**
- Temp **78 C**, Time **5 min**

Mash step by step

- Heat up **18.5 liter(s)** of strike water to **47.6C**
- Add grains
- Keep mash **0 min** at **44C**
- Keep mash **10 min** at **53C**
- Keep mash **30 min** at **62C**
- Keep mash **30 min** at **72C**
- Keep mash **5 min** at **78C**
- Sparge using **12.5 liter(s)** of **76C** water or to achieve **25.4 liter(s)** of wort

Fermentables

Type	Name	Amount	Yield	EBC
Grain	Pilzneński	4.7 kg (83.9%)	81 %	4
Grain	Strzegom Karmel 30	0.5 kg (8.9%)	75 %	30
Grain	Pszeniczny	0.4 kg (7.1%)	--- %	---

Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Marynka	40 g	60 min	11 %
Boil	Marynka	20 g	30 min	11 %
Boil	Marynka	20 g	15 min	11 %
Boil	Marynka	30 g	5 min	11 %
Dry Hop	Marynka	60 g	3 day(s)	11 %
Whirlpool	Marynka	40 g	0 min	11 %

Yeasts

Name	Type	Form	Amount	Laboratory
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Fermentis safbrew s-33	Ale	Dry	11.5 g	---
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