

# 100% Marynarz

- Gravity **13.1 BLG**
- ABV **5.3 %**
- IBU **40**
- SRM **5.7**
- Style **German Pilsner (Pils)**

## Batch size

- Expected quantity of finished beer **23 liter(s)**
- Trub loss **5 %**
- Size with trub loss **24.1 liter(s)**
- Boil time **60 min**
- Evaporation rate **20 %/h**
- Boil size **34.6 liter(s)**

## Mash information

- Mash efficiency **85 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **17.7 liter(s)**
- Total mash volume **23.6 liter(s)**

## Steps

- Temp **52 C**, Time **15 min**
- Temp **64 C**, Time **70 min**
- Temp **78 C**, Time **5 min**

## Mash step by step

- Heat up **17.7 liter(s)** of strike water to **57.3C**
- Add grains
- Keep mash **15 min** at **52C**
- Keep mash **70 min** at **64C**
- Keep mash **5 min** at **78C**
- Sparge using **22.8 liter(s)** of **76C** water or to achieve **34.6 liter(s)** of wort

## Fermentables

Type	Name	Amount	Yield	EBC
Grain	Strzegom Pilzneński	5 kg (84.7%)	80 %	4
Grain	Red ale viking malt	0.5 kg (8.5%)	75 %	70
Grain	Rice, Flaked	0.4 kg (6.8%)	70 %	2

## Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Marynka	5 g	60 min	8.5 %
Boil	Marynka	5 g	55 min	8.5 %
Boil	Marynka	5 g	50 min	8.5 %
Boil	Marynka	5 g	45 min	8.5 %
Boil	Marynka	5 g	40 min	8.5 %
Boil	Marynka	5 g	35 min	8.5 %
Boil	Marynka	5 g	30 min	8.5 %
Boil	Marynka	5 g	25 min	8.5 %
Boil	Marynka	5 g	20 min	8.5 %
Boil	Marynka	5 g	15 min	8.5 %
Boil	Marynka	5 g	10 min	8.5 %

Boil	Marynka	5 g	5 min	8.5 %
Aroma (end of boil)	Marynka	30 g	10 min	8.5 %

### Yeasts

Name	Type	Form	Amount	Laboratory
S-23	Lager	Slant	250 ml	---

### Extras

Type	Name	Amount	Use for	Time
Fining	Mech irlandzki	6 g	Boil	15 min