

- Gravity **12.6 BLG**
- ABV ---
- IBU **63**
- SRM **4.8**
- Style **Kölsch**

Batch size

- Expected quantity of finished beer **25 liter(s)**
- Trub loss **10 %**
- Size with trub loss **27.5 liter(s)**
- Boil time **60 min**
- Evaporation rate **15 %/h**
- Boil size **31.6 liter(s)**

Mash information

- Mash efficiency **80 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **16.8 liter(s)**
- Total mash volume **22.4 liter(s)**

Steps

- Temp **44 C**, Time **0 min**
- Temp **54 C**, Time **10 min**
- Temp **62 C**, Time **25 min**
- Temp **72 C**, Time **35 min**
- Temp **78 C**, Time **10 min**

Mash step by step

- Heat up **16.8 liter(s)** of strike water to **48C**
- Add grains
- Keep mash **0 min** at **44C**
- Keep mash **10 min** at **54C**
- Keep mash **25 min** at **62C**
- Keep mash **35 min** at **72C**
- Keep mash **10 min** at **78C**
- Sparge using **20.4 liter(s)** of **76C** water or to achieve **31.6 liter(s)** of wort

Fermentables

Type	Name	Amount	Yield	EBC
Grain	Pilzneński	5.3 kg (94.6%)	81 %	4
Grain	Strzegom Karmel 30	0.3 kg (5.4%)	75 %	30

Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Marynka	50 g	60 min	10 %
Boil	Marynka	10 g	30 min	10 %
Boil	Lublin (Lubelski)	40 g	20 min	4 %
Boil	Lublin (Lubelski)	20 g	5 min	4 %
Whirlpool	Lublin (Lubelski)	20 g	0 min	4 %

Yeasts

Name	Type	Form	Amount	Laboratory
Safbrew S-33	Ale	Dry	11.5 g	Safbrew

Extras

Recipe has been printed via **BREWNES.com** - a complex online solution for homebrewers to track brewing process easily.

Type	Name	Amount	Use for	Time
Fining	Mech irlandzki	10 g	Mash	10 min