Tyskie klasyczne

- Gravity **11.4 BLG**
- ABV **4.6 %**
- IBU **21**
- SRM **4.2**
- Style **German Pilsner (Pils)**

Batch size

- Expected quantity of finished beer **10 liter(s)**
- Trub loss **5 %**
- Size with trub loss **10.5 liter(s)**
- Boil time **70 min**
- Evaporation rate **10 %/h**
- Boil size **12.8 liter(s)**

Mash information

- Mash efficiency **75 %**
- Liquor-to-grist ratio **4 liter(s) / kg**
- Mash size **9.2 liter(s)**
- Total mash volume **11.4 liter(s)**

Steps

- Temp **52 C**, Time **15 min**
- Temp **68 C**, Time **45 min**
- Temp **78 C**, Time **5 min**

Mash step by step

- Heat up **9.2 liter(s)** of strike water to **56C**
- Add grains
- Keep mash **15 min** at **52C**
- Keep mash **45 min** at **68C**
- Keep mash **5 min** at **78C**
- Sparge using **5.9 liter(s)** of **76C** water or to achieve **12.8 liter(s)** of wort

Fermentables

Type	Name	Amount	Yield	EBC
Grain	Strzegom Pilzneński	1.79 kg *(78.1%)*	80 %	4
Grain	Strzegom Wiedeński	0.36 kg *(15.6%)*	79 %	10
Grain	Strzegom Karmel 30	0.07 kg *(3.1%)*	75 %	30
Grain	Acid Malt	0.07 kg *(3.1%)*	58.7 %	6

Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Marynka	4.29 g	60 min	10 %
Boil	lunga	4.29 g	30 min	11 %
Boil	Lublin (Lubelski)	7.14 g	10 min	4 %

Yeasts

Name	Type	Form	Amount	Laboratory
Mangrove Jack's M76 Bavarian Lager	Lager	Dry	7.14 g	Mangrove Jack's

Extras

Type	Name	Amount	Use for	Time

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

Fining	mech irlandzki	2.14 g	Boil	60 min
Water Agent	chlorek wapnia	2.86 g	Mash	---