I PILS

- Gravity **11.7 BLG**
- ABV **4.7 %**
- IBU **20**
- SRM **3.4**
- Style **German Pilsner (Pils)**

Batch size

- Expected quantity of finished beer **50 liter(s)**
- Trub loss **0 %**
- Size with trub loss **50 liter(s)**
- Boil time **60 min**
- Evaporation rate **10 %/h**
- Boil size **55 liter(s)**

Mash information

- Mash efficiency **78 %**
- Liquor-to-grist ratio **3.5 liter(s) / kg**
- Mash size **34.1 liter(s)**
- Total mash volume **43.9 liter(s)**

Steps

- Temp **63 C**, Time **35 min**
- Temp **72 C**, Time **35 min**
- Temp **76 C**, Time **1 min**

Mash step by step

- Heat up **34.1 liter(s)** of strike water to **69.1C**
- Add grains
- Keep mash **35 min** at **63C**
- Keep mash **35 min** at **72C**
- Keep mash **1 min** at **76C**
- Sparge using **30.7 liter(s)** of **76C** water or to achieve **55 liter(s)** of wort

Fermentables

Type	Name	Amount	Yield	EBC
Grain	Strzegom Pilzneński	9 kg *(92.3%)*	80 %	4
Grain	Weyermann - Acidulated Malt	0.25 kg *(2.6%)*	80 %	6
Grain	Weyermann - Carapils	0.5 kg *(5.1%)*	78 %	4

Hops

Use for	Name	Amount	Time	Alpha acid
Boil	lunga	25 g	60 min	10.5 %
Boil	Saaz	50 g	15 min	4.7 %
Boil	Saaz (Czech Republic)	50 g	1 min	4.7 %

Yeasts

Name	Type	Form	Amount	Laboratory
Drożdże	Lager	Liquid	5000 ml	Kdkdkdkd

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