Lechu3

- Gravity **10.7 BLG**
- ABV **4.3 %**
- IBU **41**
- SRM **4**
- Style **German Pilsner (Pils)**

Batch size

- Expected quantity of finished beer **21 liter(s)**
- Trub loss **5 %**
- Size with trub loss **23.1 liter(s)**
- Boil time **60 min**
- Evaporation rate **10 %/h**
- Boil size **27.7 liter(s)**

Mash information

- Mash efficiency **70 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **15 liter(s)**
- Total mash volume **20 liter(s)**

Steps

- Temp **65 C**, Time **30 min**
- Temp **72 C**, Time **30 min**
- Temp **78 C**, Time **0 min**

Mash step by step

- Heat up **15 liter(s)** of strike water to **72.5C**
- Add grains
- Keep mash **30 min** at **65C**
- Keep mash **30 min** at **72C**
- Keep mash **0 min** at **78C**
- Sparge using **17.7 liter(s)** of **76C** water or to achieve **27.7 liter(s)** of wort

Fermentables

Type	Name	Amount	Yield	EBC
Grain	BESTMALZ - Best Pilsen	4.5 kg *(89.9%)*	80.5 %	4
Grain	Munich	0.32 kg *(6.4%)*	--- %	15
Grain	Munich	0.185 kg *(3.7%)*	--- %	22

Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Magnum	25 g	60 min	15.3 %
Aroma (end of boil)	Spalt	50 g	0 min	5 %

Yeasts

Name	Type	Form	Amount	Laboratory
M54 california lager	Lager	Dry	10 g	Mangrove jacks

Extras

Type	Name	Amount	Use for	Time
Fining	Irish Moss	4 g	Boil	15 min

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