

Munich Helles

- Gravity **10.5 BLG**
- ABV **4.2 %**
- IBU **13**
- SRM **3.3**
- Style **Munich Helles**

Batch size

- Expected quantity of finished beer **12 liter(s)**
- Trub loss **5 %**
- Size with trub loss **12.6 liter(s)**
- Boil time **60 min**
- Evaporation rate **10 %/h**
- Boil size **15.2 liter(s)**

Mash information

- Mash efficiency **75 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **7.5 liter(s)**
- Total mash volume **10 liter(s)**

Steps

- Temp **63 C**, Time **40 min**
- Temp **73 C**, Time **20 min**
- Temp **79 C**, Time **1 min**

Mash step by step

- Heat up **7.5 liter(s)** of strike water to **70.2C**
- Add grains
- Keep mash **40 min** at **63C**
- Keep mash **20 min** at **73C**
- Keep mash **1 min** at **79C**
- Sparge using **10.2 liter(s)** of **76C** water or to achieve **15.2 liter(s)** of wort

Fermentables

Type	Name	Amount	Yield	EBC
Grain	Strzegom Pilzneński	2.5 kg (100%)	80 %	4

Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Lublin (Lubelski)	15 g	55 min	4 %
Boil	Hersbrucker	15 g	5 min	3 %

Yeasts

Name	Type	Form	Amount	Laboratory
Saflager W 34/70	Lager	Dry	11.5 g	Fermentis

Extras

Type	Name	Amount	Use for	Time
Fining	Whirlfloc	1 g	Boil	10 min