

# MUNICH HELLES

- Gravity **11.9 BLG**
- ABV **4.8 %**
- IBU **23**
- SRM **3.5**
- Style **Munich Helles**

## Batch size

- Expected quantity of finished beer **20 liter(s)**
- Trub loss **5 %**
- Size with trub loss **21 liter(s)**
- Boil time **60 min**
- Evaporation rate **22 %/h**
- Boil size **28.1 liter(s)**

## Mash information

- Mash efficiency **75 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **14 liter(s)**
- Total mash volume **18.6 liter(s)**

## Steps

- Temp **52 C**, Time **20 min**
- Temp **62 C**, Time **20 min**
- Temp **72 C**, Time **40 min**
- Temp **76 C**, Time **10 min**

## Mash step by step

- Heat up **14 liter(s)** of strike water to **57.3C**
- Add grains
- Keep mash **20 min** at **52C**
- Keep mash **20 min** at **62C**
- Keep mash **40 min** at **72C**
- Keep mash **10 min** at **76C**
- Sparge using **18.8 liter(s)** of **76C** water or to achieve **28.1 liter(s)** of wort

## Fermentables

Type	Name	Amount	Yield	EBC
Grain	Pilzneński	4 kg (86%)	81 %	4
Grain	Weyermann - Carapils	0.4 kg (8.6%)	78 %	4
Grain	Pszeniczny	0.25 kg (5.4%)	85 %	4

## Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Tradition	25 g	60 min	5.5 %
Boil	Tradition	25 g	15 min	5.5 %

## Yeasts

Name	Type	Form	Amount	Laboratory
Wyeast - Urquell	Lager	Liquid	100 ml	Wyeast Labs

## Extras

Type	Name	Amount	Use for	Time
Fining	mech	5 g	Boil	15 min