

# Konkursowe Munich Helles

- Gravity **11.9 BLG**
- ABV **4.8 %**
- IBU **20**
- SRM **4**
- 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 **10 %/h**
- Boil size **25.3 liter(s)**

## Mash information

- Mash efficiency **80 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **11.3 liter(s)**
- Total mash volume **15 liter(s)**

## Steps

- Temp **52 C**, Time **10 min**
- Temp **63 C**, Time **30 min**
- Temp **72 C**, Time **40 min**
- Temp **78 C**, Time **10 min**

## Mash step by step

- Heat up **11.3 liter(s)** of strike water to **57.3C**
- Add grains
- Keep mash **10 min** at **52C**
- Keep mash **30 min** at **63C**
- Keep mash **40 min** at **72C**
- Keep mash **10 min** at **78C**
- Sparge using **17.8 liter(s)** of **76C** water or to achieve **25.3 liter(s)** of wort

## Fermentables

Type	Name	Amount	Yield	EBC
Grain	BESTMALZ - Best Pilsen	3.2 kg (83.1%)	95 %	4
Grain	Monachijski	0.4 kg (10.4%)	95 %	16
Grain	Weyermann - Melanoiden Malt	0.15 kg (3.9%)	95 %	40
Adjunct	Rice Hulls	0.1 kg (2.6%)	1 %	0

## Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Marynka	15 g	60 min	10 %
Boil	Lublin (Lubelski)	20 g	10 min	4 %

## Yeasts

Name	Type	Form	Amount	Laboratory
Wyeast - 2206 Bavarian Lager	Lager	Liquid	125 ml	Wyeast Labs

## Extras

Type	Name	Amount	Use for	Time
Water Agent	Kwas mlekowy	12 g	Mash	---
Other	Pożywka drożdżowa	4 g	Boil	10 min