

# Munich Helles

- Gravity **10.5 BLG**
- ABV **4.2 %**
- IBU **23**
- SRM **3.8**
- Style **Munich Helles**

## Batch size

- Expected quantity of finished beer **11 liter(s)**
- Trub loss **5 %**
- Size with trub loss **11.9 liter(s)**
- Boil time **70 min**
- Evaporation rate **10 %/h**
- Boil size **14.7 liter(s)**

## Mash information

- Mash efficiency **75 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **7.2 liter(s)**
- Total mash volume **9.6 liter(s)**

## Steps

- Temp **67 C**, Time **60 min**
- Temp **72 C**, Time **10 min**
- Temp **76 C**, Time **1 min**

## Mash step by step

- Heat up **7.2 liter(s)** of strike water to **74.8C**
- Add grains
- Keep mash **60 min** at **67C**
- Keep mash **10 min** at **72C**
- Keep mash **1 min** at **76C**
- Sparge using **9.9 liter(s)** of **76C** water or to achieve **14.7 liter(s)** of wort

## Fermentables

Type	Name	Amount	Yield	EBC
Grain	Strzegom Pilzneński	2 kg (83.3%)	80 %	4
Grain	Strzegom Wiedeński	0.2 kg (8.3%)	79 %	10
Grain	Strzegom Monachijski typ I	0.2 kg (8.3%)	79 %	16

## Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Hallertau tradition	20 g	60 min	5.2 %
Boil	Hallertau tradition	5 g	5 min	5.2 %

## Yeasts

Name	Type	Form	Amount	Laboratory
gozdawa german lager w35	Lager	Dry	10 g	---

## Extras

Type	Name	Amount	Use for	Time
Fining	mech irlandzki	5 g	Boil	10 min

## Notes

- fermentacja początkowo 1 w 12 stopniach, po około 14 dniach podniesienie do 13 stopni, następnie obniżenie do około 1-3 stopni na około 20 dni.  
*Aug 5, 2018, 2:37 PM*