

# Helles Amora Preta

- Gravity **12.1 BLG**
- ABV **4.9 %**
- IBU **25**
- SRM **7.5**
- Style **Munich Helles**

## Batch size

- Expected quantity of finished beer **44 liter(s)**
- Trub loss **5 %**
- Size with trub loss **46.2 liter(s)**
- Boil time **75 min**
- Evaporation rate **10 %/h**
- Boil size **56.9 liter(s)**

## Mash information

- Mash efficiency **75 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **31.5 liter(s)**
- Total mash volume **42 liter(s)**

## Steps

- Temp **52 C**, Time **10 min**
- Temp **63 C**, Time **40 min**
- Temp **72 C**, Time **20 min**

## Mash step by step

- Heat up **31.5 liter(s)** of strike water to **57.3C**
- Add grains
- Keep mash **10 min** at **52C**
- Keep mash **40 min** at **63C**
- Keep mash **20 min** at **72C**
- Sparge using **35.9 liter(s)** of **76C** water or to achieve **56.9 liter(s)** of wort

## Fermentables

Type	Name	Amount	Yield	EBC
Grain	Pilzneński	6 kg (57.1%)	81 %	4
Grain	Strzegom Monachijski typ I	3 kg (28.6%)	79 %	16
Grain	Strzegom Monachijski typ III	0.5 kg (4.8%)	79 %	150
Grain	Weyermann - Spelt Malt	1 kg (9.5%)	81 %	6

## Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Lublin (Lubelski)	40 g	60 min	6 %
Boil	Lublin (Lubelski)	30 g	20 min	6 %
Boil	Lublin (Lubelski)	30 g	5 min	6 %
Whirlpool	Aroma Preta	50 g	0 min	9 %
Boil	Magnum	10 g	60 min	11 %

## Yeasts

Name	Type	Form	Amount	Laboratory
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Saflager S-23	Lager	Dry	22.5 g	---
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## Notes

- Blg start 12  
Brzeczka 28.01  
Fermentacja cicha 09.02  
Blg końcowe 3,5  
Rozlew 18.02  
Glukoza 150g/20l  
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