

# Mandaryna Pale Ale

---

- Gravity **12.1 BLG**
- ABV **4.9 %**
- IBU **48**
- SRM **4.5**

## Batch size

- Expected quantity of finished beer **18 liter(s)**
- Trub loss **5 %**
- Size with trub loss **18.9 liter(s)**
- Boil time **60 min**
- Evaporation rate **10 %/h**
- Boil size **22.8 liter(s)**

## Mash information

- Mash efficiency **75 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **12.9 liter(s)**
- Total mash volume **17.2 liter(s)**

## Fermentables

Type	Name	Amount	Yield	EBC
Grain	Pilzneński	2.5 kg (58.1%)	81 %	4
Grain	Caramel/Crystal Malt - 10L	0.3 kg (7%)	75 %	20
Grain	Briess - Pale Ale Malt	1.5 kg (34.9%)	80 %	7

## Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Magnum	5 g	60 min	13.5 %
Boil	Mandarina Bavaria	20 g	15 min	10 %
Boil	Mandarina Bavaria	40 g	10 min	10 %
Aroma (end of boil)	Mandarina Bavaria	40 g	5 min	10 %

## Yeasts

Name	Type	Form	Amount	Laboratory
US-04	Ale	Dry	10 g	---