

# malinowe

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- Gravity **18.7 BLG**
- ABV **8.1 %**
- IBU **23**
- SRM **7.1**
- Style **Flanders Red Ale**

## Batch size

- Expected quantity of finished beer **21 liter(s)**
- Trub loss **5 %**
- Size with trub loss **22.1 liter(s)**
- Boil time **45 min**
- Evaporation rate **10 %/h**
- Boil size **25.9 liter(s)**

## Mash information

- Mash efficiency **85 %**
- Liquor-to-grist ratio **3.1 liter(s) / kg**
- Mash size **22.3 liter(s)**
- Total mash volume **29.5 liter(s)**

## Steps

- Temp **51 C**, Time **20 min**
- Temp **62 C**, Time **30 min**
- Temp **72 C**, Time **20 min**
- Temp **78 C**, Time **10 min**

## Mash step by step

- Heat up **22.3 liter(s)** of strike water to **56C**
- Add grains
- Keep mash **20 min** at **51C**
- Keep mash **30 min** at **62C**
- Keep mash **20 min** at **72C**
- Keep mash **10 min** at **78C**
- Sparge using **10.8 liter(s)** of **76C** water or to achieve **25.9 liter(s)** of wort

## Fermentables

Type	Name	Amount	Yield	EBC
Grain	Strzegom Pale Ale	3 kg (41.7%)	79 %	6
Grain	Strzegom Pilzneński	3 kg (41.7%)	80 %	4
Grain	Strzegom Pszeniczny	0.5 kg (6.9%)	81 %	6
Grain	Strzegom Karmel 150	0.2 kg (2.8%)	75 %	150
Grain	Płatki owsiane	0.5 kg (6.9%)	60 %	3

## Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Polaris	15 g	45 min	19.8 %
Aroma (end of boil)	Polaris	20 g	0 min	19.8 %

## Yeasts

Name	Type	Form	Amount	Laboratory
Mauribrew Ale Y514	Ale	Dry	12 g	Mauribrew

WLP645 - Brettanomyces clausenii	Ale	Liquid	1000 ml	White Labs
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### Extras

Type	Name	Amount	Use for	Time
Other	Płatki dębowe (macerowane w Jim Beam White))	40 g	Secondary	10 day(s)