

# BA MARCOWE 13BLG

- Gravity **12.9 BLG**
- ABV **5.2 %**
- IBU **20**
- SRM **6**
- Style **Oktoberfest/Märzen**

## Batch size

- Expected quantity of finished beer **20 liter(s)**
- Trub loss **2 %**
- Size with trub loss **20.8 liter(s)**
- Boil time **65 min**
- Evaporation rate **9 %/h**
- Boil size **23.9 liter(s)**

## Mash information

- Mash efficiency **81.5 %**
- Liquor-to-grist ratio **4 liter(s) / kg**
- Mash size **18 liter(s)**
- Total mash volume **22.5 liter(s)**

## Steps

- Temp **52 C**, Time **15 min**
- Temp **62 C**, Time **30 min**
- Temp **72 C**, Time **15 min**
- Temp **78 C**, Time **10 min**

## Mash step by step

- Heat up **18 liter(s)** of strike water to **56C**
- Add grains
- Keep mash **15 min** at **52C**
- Keep mash **30 min** at **62C**
- Keep mash **15 min** at **72C**
- Keep mash **10 min** at **78C**
- Sparge using **10.4 liter(s)** of **76C** water or to achieve **23.9 liter(s)** of wort

## Fermentables

Type	Name	Amount	Yield	EBC
Grain	Weyermann - Pilsner Malt	3.2 kg (71.1%)	81 %	5
Grain	Monachijski typ I Weyermann	0.8 kg (17.8%)	80 %	16
Grain	Weyermann - Carapils	0.3 kg (6.7%)	78 %	4
Grain	Caramunich® typ I	0.2 kg (4.4%)	73 %	80

## Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Mount Hood	30 g	60 min	5.3 %
Boil	Relax	10 g	60 min	1 %
Boil	Relax	20 g	15 min	1 %

## Yeasts

Name	Type	Form	Amount	Laboratory
Saflager W 34/70	Lager	Slant	1000 ml	Fermentis