Marcowe

- Gravity **11.7 BLG**
- ABV **4.7 %**
- IBU **36**
- SRM **5.6**
- Style **Oktoberfest/Märzen**

Batch size

- Expected quantity of finished beer **20 liter(s)**
- Trub loss **5 %**
- Size with trub loss **21.8 liter(s)**
- Boil time **65 min**
- Evaporation rate **10 %/h**
- Boil size **26.4 liter(s)**

Mash information

- Mash efficiency **79 %**
- Liquor-to-grist ratio **3.2 liter(s) / kg**
- Mash size **14.4 liter(s)**
- Total mash volume **18.9 liter(s)**

Steps

- Temp **53 C**, Time **15 min**
- Temp **62 C**, Time **30 min**
- Temp **72 C**, Time **10 min**
- Temp **78 C**, Time **0 min**

Mash step by step

- Heat up **14.4 liter(s)** of strike water to **58.2C**
- Add grains
- Keep mash **15 min** at **53C**
- Keep mash **30 min** at **62C**
- Keep mash **10 min** at **72C**
- Keep mash **0 min** at **78C**
- Sparge using **16.5 liter(s)** of **76C** water or to achieve **26.4 liter(s)** of wort

Fermentables

Type	Name	Amount	Yield	EBC
Grain	Weyermann - Pilsner Malt	3.2 kg *(71.1%)*	82 %	5
Grain	Monachijski typ I Weyermann	0.8 kg *(17.8%)*	79 %	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	Marynka	30 g	60 min	8.1 %
Boil	Hallertau Tradition	10 g	60 min	4.2 %
Boil	Hallertau Tradition	20 g	15 min	4.2 %

Yeasts

Name	Type	Form	Amount	Laboratory
Saflager S-189	Lager	Dry	11.5 g	Fermentis

Recipe has been printed via **BREWNESS.com** - a complex online solution for homebrewers to track brewing process easily.