Marcowe

- Gravity **14.9 BLG**
- ABV **---**
- IBU **32**
- SRM **7.6**
- Style **Oktoberfest/Märzen**

Batch size

- Expected quantity of finished beer **20 liter(s)**
- Trub loss **5 %**
- Size with trub loss **21 liter(s)**
- Boil time **60 min**
- Evaporation rate **10 %/h**
- Boil size **25.3 liter(s)**

Mash information

- Mash efficiency **83 %**
- Liquor-to-grist ratio **2.6 liter(s) / kg**
- Mash size **13 liter(s)**
- Total mash volume **18 liter(s)**

Steps

- Temp **53 C**, Time **10 min**
- Temp **64 C**, Time **45 min**
- Temp **72 C**, Time **30 min**
- Temp **76 C**, Time **1 min**

Mash step by step

- Heat up **13 liter(s)** of strike water to **59.3C**
- Add grains
- Keep mash **10 min** at **53C**
- Keep mash **45 min** at **64C**
- Keep mash **30 min** at **72C**
- Keep mash **1 min** at **76C**
- Sparge using **17.3 liter(s)** of **76C** water or to achieve **25.3 liter(s)** of wort

Fermentables

Type	Name	Amount	Yield	EBC
Grain	Strzegom Wiedeński	2 kg *(40%)*	79 %	10
Grain	Strzegom Pilzneński	1.5 kg *(30%)*	80 %	4
Grain	Strzegom Monachijski typ I	1 kg *(20%)*	79 %	16
Grain	Weyermann - Carapils	0.5 kg *(10%)*	78 %	4

Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Marynka	10 g	60 min	9.4 %
Boil	Tradition	20 g	60 min	6 %
Boil	Tradition	20 g	20 min	6 %

Yeasts

Name	Type	Form	Amount	Laboratory
FM31 Bawarska Dolina	Lager	Slant	100 ml	Fermentum Mobile

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

Extras

Type	Name	Amount	Use for	Time
Fining	Mech irlandzki	5 g	Boil	10 min