Marcowe

- Gravity **12.6 BLG**
- ABV **5.1 %**
- IBU **19**
- SRM **4.6**
- 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 **75 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **15 liter(s)**
- Total mash volume **20 liter(s)**

Steps

- Temp **67 C**, Time **60 min**
- Temp **75 C**, Time **10 min**

Mash step by step

- Heat up **15 liter(s)** of strike water to **74.8C**
- Add grains
- Keep mash **60 min** at **67C**
- Keep mash **10 min** at **75C**
- Sparge using **15.3 liter(s)** of **76C** water or to achieve **25.3 liter(s)** of wort

Fermentables

Type	Name	Amount	Yield	EBC
Grain	Słód pilzneński	2.5 kg *(50%)*	80 %	4
Grain	Słód wiedeński	1.6 kg *(32%)*	79.8 %	8
Grain	Słód monachijski	0.3 kg *(6%)*	78.8 %	17.5
Grain	Słód pszeniczny	0.6 kg *(12%)*	82.8 %	4

Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Tradition	20 g	60 min	5.5 %
Boil	Tradition	15 g	30 min	5.5 %

Yeasts

Name	Type	Form	Amount	Laboratory
German lager	Lager	Dry	11 g	---