

Karmelowe na słodko

- Gravity **12.9 BLG**
- ABV **5.2 %**
- IBU **18**
- SRM **5.7**

Batch size

- Expected quantity of finished beer **25 liter(s)**
- Trub loss **5 %**
- Size with trub loss **26.3 liter(s)**
- Boil time **60 min**
- Evaporation rate **10 %/h**
- Boil size **31.7 liter(s)**

Mash information

- Mash efficiency **75 %**
- Liquor-to-grist ratio **3.5 liter(s) / kg**
- Mash size **22.8 liter(s)**
- Total mash volume **29.3 liter(s)**

Steps

- Temp **66 C**, Time **10 min**
- Temp **72 C**, Time **50 min**
- Temp **78 C**, Time **1 min**

Mash step by step

- Heat up **22.8 liter(s)** of strike water to **72.6C**
- Add grains
- Keep mash **10 min** at **66C**
- Keep mash **50 min** at **72C**
- Keep mash **1 min** at **78C**
- Sparge using **15.4 liter(s)** of **76C** water or to achieve **31.7 liter(s)** of wort

Fermentables

Type	Name	Amount	Yield	EBC
Grain	Pilsner (2 Row) Bel	4 kg (61.5%)	79 %	4
Grain	Strzegom Wiedeński	2 kg (30.8%)	79 %	10
Grain	Carared	0.5 kg (7.7%)	75 %	39

Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Marynka	18 g	60 min	10 %
Boil	East Kent Goldings	15 g	10 min	5.1 %
Aroma (end of boil)	East Kent Goldings	15 g	0 min	5.1 %

Yeasts

Name	Type	Form	Amount	Laboratory
US-04	Ale	Dry	11 g	---