

# Karmelkowe AAA

- Gravity **12.6 BLG**
- ABV ---
- IBU **26**
- SRM **14.5**
- Style **American Amber Ale**

## Batch size

- Expected quantity of finished beer **13 liter(s)**
- Trub loss **4 %**
- Size with trub loss **13.5 liter(s)**
- Boil time **60 min**
- Evaporation rate **4 %/h**
- Boil size **14.6 liter(s)**

## Mash information

- Mash efficiency **80 %**
- Liquor-to-grist ratio **4.3 liter(s) / kg**
- Mash size **12 liter(s)**
- Total mash volume **14.8 liter(s)**

## Steps

- Temp **64 C**, Time **60 min**
- Temp **76 C**, Time **10 min**

## Mash step by step

- Heat up **12 liter(s)** of strike water to **69.1C**
- Add grains
- Keep mash **60 min** at **64C**
- Keep mash **10 min** at **76C**
- Sparge using **5.4 liter(s)** of **76C** water or to achieve **14.6 liter(s)** of wort

## Fermentables

Type	Name	Amount	Yield	EBC
Grain	Strzegom Pilzneński	1.5 kg (53.6%)	80 %	4
Grain	Strzegom Pale Ale	0.5 kg (17.9%)	79 %	6
Grain	Strzegom Bursztynowy	0.1 kg (3.6%)	70 %	49
Grain	Karmelowy Pszeniczny Strzegom	0.1 kg (3.6%)	79 %	130
Grain	Biscuit Malt	0.1 kg (3.6%)	79 %	45
Grain	Rye, Flaked	0.4 kg (14.3%)	78.3 %	4
Grain	Caraaroma	0.1 kg (3.6%)	78 %	400

## Hops

Use for	Name	Amount	Time	Alpha acid
Boil	lunga	10 g	60 min	10.8 %
Boil	Saphir	10 g	30 min	2.6 %
Boil	Saphir	10 g	10 min	2.6 %
Boil	Saphir	10 g	5 min	2.6 %

## Yeasts

Name	Type	Form	Amount	Laboratory
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Danstar - Nottingham	Ale	Dry	11 g	Danstar
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### Extras

Type	Name	Amount	Use for	Time
Flavor	Laktoza	1 g	Secondary	7 day(s)