

# Ciemne resztki

- Gravity **15.9 BLG**
- ABV **6.7 %**
- IBU **33**
- SRM **40.7**
- Style **American Amber Ale**

## Batch size

- Expected quantity of finished beer **15 liter(s)**
- Trub loss **5 %**
- Size with trub loss **15.8 liter(s)**
- Boil time **60 min**
- Evaporation rate **10 %/h**
- Boil size **19 liter(s)**

## Mash information

- Mash efficiency **75 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **14.7 liter(s)**
- Total mash volume **19.6 liter(s)**

## Steps

- Temp **50 C**, Time **68 min**
- Temp **20 C**, Time **72 min**
- Temp **10 C**, Time **76 min**

## Mash step by step

- Heat up **14.7 liter(s)** of strike water to **8.3C**
- Add grains
- Keep mash **76 min** at **10C**
- Keep mash **72 min** at **20C**
- Keep mash **68 min** at **50C**
- Sparge using **9.2 liter(s)** of **76C** water or to achieve **19 liter(s)** of wort

## Fermentables

Type	Name	Amount	Yield	EBC
Grain	Pilzneński	1.31 kg (26.7%)	81 %	4
Grain	Wędzony bukiem Weyermann	1.06 kg (21.6%)	82 %	10
Grain	Grodziski pszeniczny wędzony dębem	0.96 kg (19.6%)	80 %	3
Grain	Płatki owsiane	0.47 kg (9.6%)	85 %	3
Grain	Strzegom Karmel 150	0.38 kg (7.8%)	75 %	150
Grain	Żytni Barwiący	0.38 kg (7.8%)	55 %	985
Grain	Carafa	0.34 kg (6.9%)	70 %	664

## Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Magnum	22.5 g	60 min	11.5 %

## Extras

Type	Name	Amount	Use for	Time
Flavor	Suska	300 g	Boil	15 min