Wee-Heavy (K)

- Gravity **25.3 BLG**
- ABV **11.8 %**
- IBU **34**
- SRM **23.3**
- Style **Strong Scotch Ale**

Batch size

- Expected quantity of finished beer **13 liter(s)**
- Trub loss **5 %**
- Size with trub loss **13.7 liter(s)**
- Boil time **90 min**
- Evaporation rate **15 %/h**
- Boil size **19.1 liter(s)**

Mash information

- Mash efficiency **70 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **22.5 liter(s)**
- Total mash volume **30 liter(s)**

Steps

- Temp **68 C**, Time **60 min**
- Temp **72 C**, Time **30 min**
- Temp **78 C**, Time **5 min**

Mash step by step

- Heat up **22.5 liter(s)** of strike water to **76C**
- Add grains
- Keep mash **60 min** at **68C**
- Keep mash **30 min** at **72C**
- Keep mash **5 min** at **78C**
- Sparge using **4.1 liter(s)** of **76C** water or to achieve **19.1 liter(s)** of wort

Fermentables

Type	Name	Amount	Yield	EBC
Grain	Simpsons - Maris Otter	6 kg *(80%)*	81 %	6
Grain	Weyermann - Caraaroma	0.2 kg *(2.7%)*	78 %	400
Grain	Słód Caramunich Typ II Weyermann	0.4 kg *(5.3%)*	73 %	120
Grain	Weyermann - Carahell	0.2 kg *(2.7%)*	77 %	26
Grain	Strzegom Czekoladowy jasny	0.2 kg *(2.7%)*	68 %	400
Grain	Monachijski Ciemny Bestmalz	0.5 kg *(6.7%)*	100 %	28

Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Challenger	50 g	60 min	7 %

Yeasts

Name	Type	Form	Amount	Laboratory
Espe	Ale	Slant	50 ml	PRIV

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	Whirlfloc	1.25 g	Boil	5 min
Water Agent	Sól Epsom	1 g	Mash	95 min
Water Agent	Chlorek wapnia	2.3 g	Mash	95 min
2.3 to przeliczona wartość w ml dla 1 g				
Water Agent	Kwas fosforowy 75%	3 g	Mash	95 min

Notes

- Woda - 50% demineralizowana + 50% kranowa
  Woda jaka powinna być:
  Calcium (ppm)50-100
  Magnesium (ppm)0-30
  Alkalinity as CaCO340-120
  Sulfate (ppm)50-100
  Chloride (ppm)50-150
  Sodium (ppm)<100
  Residual Alkalinity0-60

  Po dodaniu soli i wody zdemineralizowanej
  Calcium (ppm)67
  Magnesium (ppm)10
  Alkalinity as CaCO378
  Sulfate (ppm)93
  Chloride (ppm)81
  Sodium (ppm)26
  Residual Alkalinity24
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