

## K Miljø

## K.1 EPD deklarasjon for betong

08.05.2023, 15:25

LCA.no AS

Helgeland Betong > EPD generator

SupportEnglishv@helgelandfirdigbetong.no

EPD

62198 B45 M40 D-16 uredusert Resept 55109

Declared unit (DU): 1 m3 2390.222

Print PDF

Analysis

Documents

EPD header

EPD data

Summary

Product stage			Construction installation stage		User stage								End of life stage			
Raw materials	Transport	Manufacturing	Transport	Assembly	Use	Maintenance	Repair	Replacement	Refurbishment	Operational energy use	Operational water use	Deconstruction demolition	Transport	Waste processing	Disposal	
A1	A2	A3	A4	A5	B1	B2	B3	B4	B5	B6	B7	C1	C2	C3	C4	
X	X	X	X	MND	MND	MND	MND	MND	MND	MND	MND	MND	MND	MND	MND	

EN15804A1

EN15804A2

Key environmental indicators	Unit	Cradle to gate A1 - A3	Transport to site/warehouse (A4)
Global warming (GWP)	kg CO2 eqv	295.1755	1.9333
Total energy consumption	MJ	1971.7586	30.0079
Substances from the REACH candidate list	*	x	x

Product list

Material	Quantity	Percent
Sand, natursand (kg)	915.68	38.31
Tilslag, fint, sprengt stein, 3. knusebrønn 0/2 mm, 2/5mm, 2/8mm, 5/8 mm, 8/11 mm, 11/16 mm, 8/16 mm (kg)	821.28	34.36
Vann (kg)	180.81	7.56
Admixture, Superplasticiser (kg)	5.24	0.22
Sement, Standardsement FA - CEM II/B-M (V-L) 42,5 R, Norcem Kjøpsvik, NEPD-3943-2903 (kg)	447.60	18.73
Silikastøv, mikrosilika (kg)	19.62	0.82

Environmental impact

Parameter	Unit	A1	A2	A3	A4
GWP	kg CO2-eq	2.87E+02	5.42E+00	2.53E+00	1.93E+00
ODP	kg CFC11-eq	2.71E-06	1.06E-06	4.52E-07	3.59E-07
POCP	kg C2H4-eq	1.09E-02	2.60E-03	4.08E-04	2.36E-04
AP	kg SO2-eq	2.16E-01	9.10E-02	4.07E-03	3.86E-03
EP	kg PO4 <sup>3-</sup> -eq	3.36E-02	8.95E-03	4.58E-04	4.10E-04
ADPM	kg Sb-eq	1.10E-03	4.79E-05	6.37E-06	5.39E-05
ADPE	MJ	1.06E+03	7.60E+01	3.63E+01	2.89E+01

Resource use

Parameter	Unit	A1	A2	A3	A4
RPEE	MJ	4.44E+02	6.09E-01	3.81E-01	4.23E-01
RPEM	MJ	0.00E+00	0.00E+00	0.00E+00	0.00E+00
TPE	MJ	4.15E+02	3.88E-01	3.81E-01	4.23E-01
NRPE	MJ	1.41E+03	7.68E+01	3.70E+01	2.95E+01
NRPM	MJ	2.52E+01	0.00E+00	0.00E+00	0.00E+00
TRPE	MJ	1.09E+03	7.46E+01	3.60E+01	2.87E+01

## K.2 Mengdeuttak og volumberegning

### Mengdeuttak

Mengdeuttaket er hentet ut fra tilsendte excel-filer fra Cowi, og er omgjort til en forenklet versjon. Elementet er hentet ut fra hver etasje for hvert element:

Element	kode	EL-00-001	EL-01-001	EL-02-001	EL-03-001	EL-04-001	EL-05-001	EL-U1-001	Totalt antall
dobbel L bjelker	DLB	18						18	36
L bjelker	LBJ	6						5	11
Rektangulærebjelker	RBJ	11							11
Svalganger	SVA		7	7	7	7			28
rektangulære søyler	RES	18						22	40
Hulldykker, kjeller	U1							166	166
Massive dekker	KDE	2	1	1	1	1	2	3	11
Massive vegger	KVG	7	16	16	16	6	6		67
Sandwich element	SW		9	9	9	9	9		45
Hulldykker	tall	182	124	124	91	91	72		684
Total		244	157	157	124	114	89	214	1099

### Total Volum av elementer

Element	kode	Totalt volum[mm^3]	Totalt volum [m^3]
dobbel L bjelker	DLB	91656000000	91,656
L bjelker	LBJ	19552150000	19,55215
Rektangulærebjelker	RBJ	11944000000	11,944
rektangulære søyler	RES	20496800000	20,4968
Massive vegger	KVG	1,90484E+11	190,4835874
Sandwich element	SW	3,69316E+11	369,3155336
Hulldykker	tall	9,51516E+11	951,5163829
Totalt		1654,964454	m^3

## Volumberegninger

For volumberegningene er elementene fra hver etasje sammenlagt og delt inn i enkelt elementer. Der totalt volum blir beregnet:

### Bjelker:

#### Dobbel L bjelker

dobbel L bjelker						
Navn	lengde	bredde	høyde	Antall	Volum [mm <sup>3</sup> ]	
DLB-0001	6820	700	900	1	4296600000	
DLB-0002	4940	700	900	1	3112200000	
DLB-0003	6980	700	900	1	4397400000	
DLB-0004	3440	700	900	1	2167200000	
DLB-0005	5880	700	900	1	3704400000	
DLB-0006	5940	750	800	1	3564000000	
DLB-0007	7670	750	800	1	4602000000	
DLB-0008	3440	700	800	1	1926400000	
DLB-0009	5380	700	800	1	3012800000	
DLB-0010	4530	700	800	1	2536800000	
DLB-0011	6340	700	800	1	3550400000	
DLB-0012	2000	550	1420	1	1562000000	
DLB-0014	3580	700	600	1	1503600000	
DLB-0015	4825	700	600	1	2026500000	
DLB-0016	5490	700	800	1	3074400000	
DLB-0017	3440	700	800	1	1926400000	
DLB-0018	5380	700	800	1	3012800000	
DLB-0019	5380	700	800	1	3012800000	
DLB-U101	2970	700	600	1	1247400000	
DLB-U102	8680	700	600	1	3645600000	
DLB-U103	2770	700	600	1	1163400000	
DLB-U104	6770	700	600	1	2843400000	
DLB-U105	2870	700	600	1	1205400000	
DLB-U106	5670	750	600	1	2551500000	
DLB-U107	6980	700	600	1	2931600000	
DLB-U108	4670	700	600	1	1961400000	
DLB-U109	5670	700	600	1	2381400000	
DLB-U110	8090	700	600	1	3397800000	
DLB-U111	4960	700	600	1	2083200000	
DLB-U112	2960	700	600	1	1243200000	
DLB-U113	4110	700	600	1	1726200000	
DLB-U114	6230	700	600	1	2616600000	
DLB-U115	5380	700	600	1	2259600000	
DLB-U116	4960	700	600	1	2083200000	
DLB-U117	2960	700	600	1	1243200000	
DLB-U118	4960	700	600	1	2083200000	
Totalt volum					91656000000	

#### L bjelker og Rektangulære bjelker

L bjelker						
Navn	lengde	bredde	høyde	Antall	Volum [mm <sup>3</sup> ]	
LBJ-0001	3470	550	900	1	1717650000	
LBJ-0002	6140	550	900	1	3039300000	
LBJ-0003	6560	550	900	1	3247200000	
LBJ-0004	3215	550	600	1	1060950000	
LBJ-0005	3515	350	1300	1	1599325000	
LBJ-0006	3465	350	1300	1	1576575000	
LBJ-U101	2770	550	600	1	914100000	
LBJ-U102	5780	550	600	1	1907400000	
LBJ-U103	3680	550	600	1	1214400000	
LBJ-U104	6770	550	600	1	2234100000	
LBJ-U105	3155	550	600	1	1041150000	
Totalt volum					19552150000	

Rektangulære bjelker						
Navn	lengde	bredde	høyde	antall	Volum [mm <sup>3</sup> ]	
RBJ-0001	6060	400	600	2	2908800000	
RBJ-0002	6695	400	600	1	1606800000	
RBJ-0003	5560	400	600	1	1334400000	
RBJ-0004	6285	200	1000	1	1257000000	
RBJ-0005	6060	200	1000	1	1212000000	
RBJ-0006	2060	400	600	2	988800000	
RBJ-0007	2210	200	1000	1	442000000	
RBJ-0008	6405	400	600	1	1537200000	
RBJ-0009	3650	300	600	1	657000000	
Totalt volum					11944000000	

## Søyler:

### Rektangulære søyler

Rektangulære søyler					
Navn	lengde	bredde	høyde	antall	volum
RES-0001	2765	400	400	2	884800000
RES-0002	2765	500	400	2	1106000000
RES-0003	2165	400	400	1	346400000
RES-0004	2980	400	500	1	596000000
RES-0005	2765	400	400	1	442400000
RES-0006	2765	400	400	1	442400000
RES-0007	2865	500	400	6	3438000000
RES-0008	2865	400	400	2	916800000
RES-0009	2985	400	400	1	477600000
RES-0010	2765	400	400	1	442400000
RES-U101	3000	500	400	2	1200000000
RES-U102	3000	400	400	1	480000000
RES-U103	3000	400	400	1	480000000
RES-U104	2665	400	400	3	1279200000
RES-U105	3000	400	400	2	960000000
RES-U106	3000	400	400	2	960000000
RES-U107	3000	400	400	1	480000000
RES-U108	2390	400	400	1	382400000
RES-U109	3000	400	500	6	3600000000
RES-U110	2390	400	400	1	382400000
RES-U111	3000	500	400	1	600000000
RES-U112	3000	500	400	1	600000000
Totalt volum					20496800000

## Veggelement

### Massive vegger

lengde	bredde	høyde	antall	volum
6000	200	3820	1	4584000000
4834,3	200	2660	1	2571847600
5784,3	200	3820	1	4419205200
2434	200	3820	1	1859576000
2599,6	200	920	1	478326400
1668	200	1540	1	513744000
2683,8	200	3220	1	1728367200
6192	200	2915	1	3609936000
6229	200	2915	1	3631507000
6192	200	2915	1	3609936000
6235	200	2915	1	3635005000
6192	200	2915	1	3609936000
6290	200	2915	1	3667070000
3576	200	2915	1	2084808000
5893	200	2915	1	3435619000
6330	200	2915	1	3690390000
6292	200	2915	1	3668236000
6292	200	2915	1	3668236000
6292	200	2915	1	3668236000
6292	200	2915	1	3668236000
2940	200	540	1	220320000
2684	200	3800	1	2039840000
2040	200	540	1	220320000
6192	200	2715	1	3362256000
6230	200	2715	1	3382890000
6192	200	2715	1	3362256000
6230	200	2715	1	3382890000
6192	200	2715	1	3362256000
6235	200	2715	1	3385605000
3576	200	2715	1	1941768000
5893	200	2715	1	3199899000
6330	200	2715	1	3437190000
6292	200	2715	1	3416556000
6292	200	2715	1	3416556000
6292	200	2715	1	3416556000
6292	200	2715	1	3416556000
2684	200	2980	1	1599664000
Totalt volum				1,1545E+11

lengde	bredde	høyde	antall	volum
6192	200	2715	1	3362256000
6230	200	2715	1	3382890000
6192	200	2715	1	3362256000
6230	200	2715	1	3382890000
6192	200	2715	1	3362256000
6235	200	2715	1	3385605000
3576	200	2715	1	1941768000
5893	200	2715	1	3199899000
6330	200	2715	1	3437190000
6292	200	2715	1	3416556000
6292	200	2715	1	3416556000
6292	200	2715	1	3416556000
6292	200	2715	1	3416556000
6292	200	2715	1	3416556000
6292	200	2715	1	3416556000
2040	200	740	1	301920000
2684	200	3180	1	1707024000
6292	200	2915	1	3668236000
3693	200	2915	1	2153019000
6292	200	2915	1	3668236000
3693	200	2915	1	2153019000
2040	200	640	1	261120000
2684	200	3080	1	1653344000
6292	200	2810	1	3536104000
3693	200	2810	1	2075466000
6292	200	2810	1	3536104000
3693	200	2810	1	2075466000
2040	200	1220	1	497760000
2684	200	3440	1	1846592000
Totalt volum				75033200000

## Sandwich element

Sandwich element	lengde	bredde	høyde	antall	volum
SW-1001	7512	440	3180	1	10510790400
SW-1002	7512	440	3180	1	10510790400
SW-1003	4554	440	3180	1	6371958000
SW-1004	7732	440	3180	1	10818614400
SW-1005	7662	440	3180	1	10720670400
SW-1006	5568	360	3900	1	7817472000
SW-1007	5370	360	3960	1	7655472000
SW-1008	5568	360	3960	1	7937740800
SW-1009	5370	360	3340	1	6456888000
SW-2001	7512	440	3005	1	9932366400
SW-2002	7512	440	3005	1	9932366400
SW-2003	4554	440	3005	1	6021298800
SW-2004	7732	440	3005	1	10223250400
SW-2005	7662	440	3005	1	10130696400
SW-2006	5568	360	3005	1	6023462400
SW-2007	5370	360	3005	1	5809266000
SW-2008	5568	360	3005	1	6023462400
SW-2009	5370	360	3005	1	5809266000
SW-2002	7512	440	3005	1	9932366400
SW-2004	7732	440	3005	1	10223250400
SW-3001	7512	440	3485	1	11518900800
SW-3003	4554	440	3005	1	6021298800
SW-3005	7662	440	3485	1	11748918000
SW-3006	5568	360	3205	1	6424358400
SW-3007	5370	360	3205	1	6195906000
SW-3008	5568	360	3205	1	6424358400
SW-3009	5370	360	3205	1	6195906000
SW-4001	4512	440	3205	1	6362822400
SW-4002	7512	440	3205	1	10593422400
SW-4003	4554	440	3205	1	6422050800
SW-4004	7732	440	3205	1	10903666400
SW-4005	5062	440	3205	1	7138432400
SW-4006	5568	360	3105	1	6223910400
SW-4007	5370	360	3105	1	6002586000
SW-4008	5568	360	3105	1	6223910400
SW-4009	5370	360	3105	1	6002586000
Totalt volum					2.89264E+11

	lengde	bredde	høyde	antall	volum
SW-5001	4512	440	3650	1	7246272000
SW-5002	7512	440	3650	1	12064272000
SW-5003	4554	440	3650	1	7313724000
SW-5004	7732	440	3650	1	12417592000
SW-5005	5062	440	3650	1	8129572000
SW-5006	5568	360	4175	1	8368704000
SW-5007	5370	360	4175	1	8071110000
SW-5008	5568	360	4175	1	8368704000
SW-5009	5370	360	4175	1	8071110000
Totalt volum					80051060000

## Hulldekke

Hulldekke	tv.snitts areal [m^2]	tv.snitt A[mm^2]
HD265	0,1653	165300
HD320	0,1827	182700
HD400	0,2411	241100

## Hulldekke i EL – 00 - 001

Hulldekker						Volum = tv.snitt	
Navn	lengde	bredde	høyde	antall	A*L*antall		
27001	3157,1	1067	265	1	521868630		
27002	3157,1	600	265	1	521868630		
27003	8642	1067	265	1	1428522600		
27004	8642	600	265	1	1428522600		
27005	2900	1067	265	1	479370000		
27006	2900	600	265	1	479370000		
27007	5685	1200	265	9	8457574500		
27008	5626	1200	265	1	963037800		
27009	6185	1200	265	9	9201424500		
27010	6185	1020	265	1	1022380500		
27011	5960	1200	265	9	8866692000		
27012	5960	1020	265	1	985188000		
27013	6510	1200	265	1	1076103000		
27014	6510	822	265	1	1076103000		
27015	1960	1200	265	1	323988000		
27016	6185	822	265	1	1022380500		
27017	6185	600	265	2	2044761000		
27018	5960	822	265	1	985188000		
27019	5960	600	265	2	1970376000		
27020	1960	600	265	1	323988000		
27021	1960	822	265	1	323988000		
27022	5685	782	265	1	939730500		
27023	9055	1200	265	6	8980749000		
27024	9280	1200	265	1	1533984000		
27025	9280	822	265	1	1533984000		
27026	9280	600	265	1	1533984000		
27027	6685	822	265	1	1105030500		
27028	6685	1200	265	1	1105030500		
27029	6685	600	265	1	1105030500		
27030	6460	1200	265	6	6407028000		
27031	6685	1200	265	1	1105030500		
27034	6700	1044	265	1	1107510000		
27035	6700	1200	265	9	9967590000		
27036	3350	1200	265	9	4983795000		
27037	3350	1044	265	1	553755000		
27038	3350	332	265	1	553755000		
27039	3310	1200	265	4	2188572000		
27040	3310	562	265	1	547143000		
27041	4010	1200	265	1	662853000		
27042	4010	822	265	1	662853000		
27043	2110	600	265	1	348783000		
27044	2110	822	265	1	348783000		
27048	3310	1200	265	1	547143000		
27049	3310	1200	265	1	547143000		
27050	3310	1200	265	1	547143000		
27051	3350	1200	265	1	553755000		
27052	3350	1200	265	1	553755000		
27053	3350	1200	265	1	553755000		
27054	6700	1200	265	1	1107510000		
27055	6700	1044	265	1	1107510000		
27056	6700	1200	265	1	1107510000		
27057	6700	1200	265	1	1107510000		
27058	6460	1200	265	1	1067838000		
27059	9280	1200	265	1	1533984000		
27060	6685	1200	265	1	1105030500		
27061	9280	1200	265	1	1533984000		
27062	9055	1200	265	1	1496791500		
27063	3157,1	1200	265	1	521868630		
27064	8642	1200	265	1	1428522600		
27065	2900	1200	265	1	479370000		
27066	5685	1200	265	1	939730500		
27067	9055	1200	265	1	1496791500		
27068	6460	1200	265	1	1067838000		

27069	3310	1200	265	3	1641429000
27071	6185	1200	265	1	1022380500
27072	6185	1200	265	1	1022380500
27073	6185	822	265	1	1022380500
27074	5960	1200	265	1	985188000
27075	6510	1200	265	1	1076103000
27076	4010	1200	265	1	662853000
27077	6510	1200	265	1	1076103000
27079	3310	1200	265	1	547143000
27080	3310	1200	265	1	547143000
27081	3310	1200	265	1	547143000
27082	5960	822	265	1	985188000
27083	5905	1200	265	1	976096500
27084	5905,9	1200	265	1	976245270
27085	6510	1200	265	1	1076103000
27086	6510	1200	265	1	1076103000
27087	6510	1200	265	1	1076103000
27088	6510	1200	265	1	1076103000
27089	4010	1200	265	1	662853000
27090	5685	1200	265	1	939730500
27091	6185	1200	265	1	1022380500
27092	5960	1200	265	1	985188000
27093	5685	1200	265	1	939730500
27096	1960	1200	265	1	323988000
27097	3350	1200	265	1	553755000
27098	3310	1200	265	1	547143000
27099	6700	1200	265	1	1107510000
27100	5960	1200	265	1	985188000
27101	6510	1200	265	2	2152206000
27102	6510	1200	265	1	1076103000
32001	5985	700	320	1	1093459500
32002	5695	1200	320	1	1040476500
32003	5985	1200	320	1	1093459500
32004	5695	739	320	1	1040476500
32005	5695	1200	320	1	1040476500
32006	4010	1200	320	9	6593643000
32007	4010	1017	320	1	732627000
32008	4020	1200	320	1	734454000
32009	4010	1200	320	1	732627000
32010	5985	1200	320	1	1093459500
32012	4020	1017	320	1	734454000
40001	12225	1200	400	5	14737237500
40002	15200	1017	400	1	3664720000
40003	15200	739	400	1	3664720000
40004	12075	1200	400	2	5822565000
40005	12225	739	400	1	2947447500
40006	12225	1200	400	1	2947447500
40007	12075	1200	400	1	2911282500
Total volum					1,92495E+11



## Hulldেকে i EL – 01 - 001

Navn	lengde	bredde	høyde	antall	Volum = tv.snitt A*L*antall
127002	4325	1050	265	1	714922500
127004	4325	1200	265	1	714922500
127006	6750	1200	265	1	1115775000
127007	9295	1200	265	7	10755244500
127008	5940	1200	265	2	1963764000
127009	5940	1200	265	4	3927528000
127010	5940	562	265	1	981882000
127011	5292	1200	265	1	874767600
127012	5940	1200	265	1	981882000
127013	6440	1200	265	16	17032512000
127014	6440	562	265	2	2129064000
127015	4400	1075	265	1	727320000
127018	6750	562	265	1	1115775000
127019	6570	795	265	1	1086021000
127020	6570	1200	265	1	1086021000
127021	6570	590	265	1	1086021000
127022	6750	562	265	1	1115775000
127023	5760	795	265	1	952128000
127024	5760	1200	265	1	952128000
127025	6940	831	265	1	1147182000
127026	6260	795	265	4	4139112000
127027	6260	1200	265	2	2069556000
127028	2760	795	265	1	456228000
127029	6940	562	265	1	1147182000
127030	2760	1200	265	1	456228000
127031	6940	1002	265	1	1147182000
127032	2827	795	265	1	467903100
127033	2827	1200	265	1	467903100
127034	6750	1002	265	1	1115775000
127035	8502	795	265	1	1405380600
127036	8502	1200	265	1	1405380600
127037	9270	590	265	1	1532331000
127038	9270	1200	265	1	1532331000
127039	6760	590	265	2	2234856000
127041	6940	568	265	1	1147182000
127066	9295	849	265	1	1536463500
127067	6750	1200	265	5	5578875000
127068	6750	1200	265	3	3347325000
127083	6570	1200	265	1	1086021000
127084	6570	1200	265	1	1086021000
127085	6750	1200	265	1	1115775000
127086	6750	1200	265	1	1115775000
127087	6750	1200	265	1	1115775000
127089	6750	1200	265	1	1115775000
127090	6750	1200	265	1	1115775000
127091	6760	1200	265	2	2234856000
127092	6760	1200	265	2	2234856000
127093	6940	1200	265	2	2294364000
127094	6940	1200	265	14	16060548000
127095	6940	1200	265	1	1147182000
127096	6940	1200	265	1	1147182000
127097	9295	1200	265	1	1536463500
127098	9295	1200	265	1	1536463500
127099	2827	795	265	1	467903100
127100	5940	1200	265	1	981882000
127101	5292	1200	265	1	874767600
127102	8502	795	265	1	1405380600
127103	2760	795	265	1	456228000
127104	5760	795	265	1	952128000
127105	6440	1200	265	2	2129064000
127106	6440	1200	265	2	2129064000
127107	6570	795	265	1	1086021000
127108	4400	1075	265	1	727320000
127109	6750	1200	265	1	1115775000
127110	6750	1200	265	1	1115775000
127111	6750	1200	265	1	1115775000
127112	6750	1200	265	1	1115775000
127114	6750	1200	265	1	1115775000
127115	9270	1200	265	1	1532331000
Totalt volum					1,3591E+11

# Hulldেকে i EL – 02 - 001

Navn	lengde	bredde	høyde	antall	Volum = tv.snitt A*L*antall
127002	4325	1050	265	1	714922500
127004	4325	1200	265	1	714922500
127006	6750	1200	265	1	1115775000
127007	9295	1200	265	7	10755244500
127008	5940	1200	265	2	1963764000
127009	5940	1200	265	4	3927528000
127010	5940	562	265	1	981882000
127011	5292	1200	265	1	874767600
127012	5940	1200	265	1	981882000
127013	6440	1200	265	16	17032512000
127014	6440	562	265	2	2129064000
127015	4400	1075	265	1	727320000
127018	6750	562	265	1	1115775000
127019	6570	795	265	1	1086021000
127020	6570	1200	265	1	1086021000
127021	6570	590	265	1	1086021000
127022	6750	562	265	1	1115775000
127023	5760	795	265	1	952128000
127024	5760	1200	265	1	952128000
127025	6940	831	265	1	1147182000
127026	6260	795	265	4	4139112000
127027	6260	1200	265	2	2069556000
127028	2760	795	265	1	456228000
127029	6940	562	265	1	1147182000
127030	2760	1200	265	1	456228000
127031	6940	1002	265	1	1147182000
127032	2827	795	265	1	467303100
127033	2827	1200	265	1	467303100
127034	6750	1002	265	1	1115775000
127035	8502	795	265	1	1405380600
127036	8502	1200	265	1	1405380600
127037	9270	590	265	1	1532331000
127038	9270	1200	265	1	1532331000
127039	6760	590	265	2	2234856000
127041	6940	568	265	1	1147182000
127066	9295	849	265	1	1536463500
127067	6750	1200	265	5	5578875000
127068	6750	1200	265	3	3347325000
127083	6570	1200	265	1	1086021000
127084	6570	1200	265	1	1086021000
127085	6750	1200	265	1	1115775000
127086	6750	1200	265	1	1115775000
127087	6750	1200	265	1	1115775000
127089	6750	1200	265	1	1115775000
127090	6750	1200	265	1	1115775000
127091	6760	1200	265	2	2234856000
127092	6760	1200	265	2	2234856000
127093	6940	1200	265	2	2294364000
127094	6940	1200	265	14	16060548000
127095	6940	1200	265	1	1147182000
127096	6940	1200	265	1	1147182000
127097	9295	1200	265	1	1536463500
127098	9295	1200	265	1	1536463500
127099	2827	795	265	1	467303100
127100	5940	1200	265	1	981882000
127101	5292	1200	265	1	874767600
127102	8502	795	265	1	1405380600
127103	2760	795	265	1	456228000
127104	5760	795	265	1	952128000
127105	6440	1200	265	2	2129064000
127106	6440	1200	265	2	2129064000
127107	6570	795	265	1	1086021000
127108	4400	1075	265	1	727320000
127109	6750	1200	265	1	1115775000
127110	6750	1200	265	1	1115775000
127111	6750	1200	265	1	1115775000
127112	6750	1200	265	1	1115775000
127114	6750	1200	265	1	1115775000
127115	9270	1200	265	1	1532331000
Totalt volum					1,3591E+11



# Hulldেকে i EL – 03 - 001

Navn	lengde	bredde	høyde	antall	Volum = tv.snitt	
					A*L*antall	
327001	6750	1200	265	1	1115775000	
327002	6750	1200	265	3	3347325000	
327003	6750	1200	265	1	1115775000	
327004	6750	1200	265	1	1115775000	
327005	6750	1200	265	1	1115775000	
327006	6750	562	265	1	1115775000	
327007	6750	1002	265	1	1115775000	
327008	6750	1200	265	1	1115775000	
327009	4325	1200	265	1	714922500	
327010	4325	1050	265	1	714922500	
327011	6750	1200	265	1	1115775000	
327012	6940	1200	265	2	2294364000	
327013	6940	1200	265	7	8030274000	
327014	6940	1200	265	2	2294364000	
327015	6940	1200	265	1	1147182000	
327016	6940	1200	265	1	1147182000	
327017	6940	562	265	1	1147182000	
327018	6940	1002	265	1	1147182000	
327019	6940	1200	265	1	1147182000	
327020	6940	1200	265	1	1147182000	
327021	6940	1200	265	1	1147182000	
327022	6940	1200	265	1	1147182000	
327023	6940	568	265	1	1147182000	
327024	6940	831	265	1	1147182000	
327025	6940	1200	265	1	1147182000	
327026	9295	1200	265	1	1536463500	
327027	9295	1200	265	4	6145854000	
327028	9295	1200	265	1	1536463500	
327029	9295	1200	265	1	1536463500	
327030	9295	1200	265	1	1536463500	
327031	9295	849	265	1	1536463500	
327032	9295	1200	265	1	1536463500	
327033	5292	1200	265	1	874767600	
327034	5292	1200	265	1	874767600	
327035	5950	1200	265	1	983535000	
327036	5950	1200	265	4	3934140000	
327037	5950	1200	265	1	983535000	
327038	5950	562	265	1	983535000	
327039	5950	1200	265	1	983535000	
327040	5950	1200	265	1	983535000	
327041	6440	1200	265	1	1064532000	
327042	6440	1200	265	6	6387192000	
327043	6440	1200	265	1	1064532000	
327044	6440	1200	265	1	1064532000	
327045	6440	1200	265	1	1064532000	
327046	6440	562	265	2	2129064000	
327047	6440	1200	265	1	1064532000	
327048	6440	1200	265	8	8516256000	
327049	6440	1200	265	1	1064532000	
327050	4400	1075	265	1	727320000	
327051	4400	1075	265	1	727320000	
327052	6750	1200	265	1	1115775000	
327053	6750	1200	265	4	4463100000	
327054	6750	562	265	1	1115775000	
327055	6750	1200	265	1	1115775000	
327056	6750	1200	265	1	1115775000	
327057	6750	1200	265	1	1115775000	
327058	6750	1200	265	1	1115775000	
327059	6750	1200	265	1	1115775000	
Totalt volum					1,02055E+11	

# Hulldেকে i EL - 04 - 001

Navn	lengde	bredde	høyde	antall	Volum = tv.snitt	
					A*L	antall
427001	6570	1200	265	1	1086021000	
427002	6570	1200	265	1	1086021000	
427003	6660	1200	265	1	1100898000	
427004	6635	1200	265	2	2193531000	
427005	6635	562	265	1	1096765500	
427006	6635	1002	265	1	1096765500	
427007	4325	1200	265	1	714922500	
427008	4325	1050	265	1	714922500	
427009	6635	1200	265	2	2193531000	
427010	6635	1200	265	1	1096765500	
427011	6635	1200	265	1	1096765500	
427012	6760	1200	265	2	2234856000	
427013	6760	1200	265	2	2234856000	
427014	6710	1200	265	7	7764141000	
427015	6710	1002	265	1	1109163000	
427016	6710	562	265	1	1109163000	
427017	6760	1200	265	2	2234856000	
427018	6710	1200	265	1	1109163000	
427019	6710	568	265	1	1109163000	
427020	6710	831	265	1	1109163000	
427021	6710	1200	265	1	1109163000	
427022	9243	1200	265	1	1527867900	
427023	9243	1200	265	1	1527867900	
427024	9243	1200	265	1	1527867900	
427025	9218	1200	265	4	6094941600	
427026	9218	849	265	1	1523735400	
427027	9218	1200	265	1	1523735400	
427028	5178	1200	265	1	855923400	
427029	5178	1200	265	1	855923400	
427030	5710	1200	265	1	943863000	
427031	5710	1200	265	5	4719315000	
427032	5710	562	265	1	943863000	
427033	5760	1200	265	1	952128000	
427034	5760	1200	265	1	952128000	
427035	6325	1200	265	6	6273135000	
427036	6325	562	265	1	1045522500	
427037	6325	1200	265	1	1045522500	
427038	6260	1200	265	1	1034778000	
427039	6260	1200	265	1	1034778000	
427040	6440	1200	265	1	1064532000	
427041	6440	1200	265	6	6387192000	
427042	6440	562	265	1	1064532000	
427043	6440	1200	265	1	1064532000	
427044	6260	1200	265	1	1034778000	
427045	6260	1200	265	1	1034778000	
427046	4400	1075	265	1	727320000	
427047	4400	1075	265	1	727320000	
427048	6750	1200	265	1	1115775000	
427049	6750	1200	265	1	1115775000	
427050	6750	1200	265	1	1115775000	
427051	6750	1200	265	1	1115775000	
427052	6750	1200	265	1	1115775000	
427053	6750	562	265	1	1115775000	
427054	6750	1200	265	2	2231550000	
427055	6750	1200	265	1	1115775000	
427056	6570	1200	265	1	1086021000	
427057	6570	1200	265	1	1086021000	
427058	6325	1200	265	1	1045522500	
427059	6710	1200	265	2	2218326000	
427060	6710	1200	265	1	1109163000	
427061	9218	1200	265	1	1523735400	
Totalt volum					1,00199E+11	

# Hulldেকে i EL-05 - 001

Navn	lengde	bredde	høyde	antall	Volum = tv.snitt	
					A*L*antall	
527001	6635	1200	265	1	1096765500	
527002	6635	1200	265	1	1096765500	
527003	6635	1200	265	1	1096765500	
527004	6635	1200	265	1	1096765500	
527005	6635	1200	265	1	1096765500	
527006	6635	1075	265	1	1096765500	
527007	6635	1075	265	1	1096765500	
527008	6635	1200	265	1	1096765500	
527009	4325	1200	265	1	714922500	
527010	4325	1050	265	1	714922500	
527011	6710	1200	265	2	2218326000	
527012	6710	1200	265	2	2218326000	
527013	6710	1200	265	1	1109163000	
527014	6710	1200	265	2	2218326000	
527015	6710	1075	265	1	1109163000	
527016	6710	1075	265	1	1109163000	
527017	6710	1200	265	1	1109163000	
527018	6710	1200	265	2	2218326000	
527019	6710	1200	265	1	1109163000	
527020	6710	1200	265	1	1109163000	
527021	6710	799	265	1	1109163000	
527022	6710	1200	265	1	1109163000	
527023	9218	1200	265	1	1523735400	
527024	9218	1200	265	4	6094941600	
527025	9218	849	265	1	1523735400	
527026	9218	607	265	1	1523735400	
527027	9218	1200	265	1	1523735400	
527028	5178	1200	265	1	855923400	
527029	5178	1200	265	1	855923400	
527030	5710	1200	265	1	943863000	
527031	5710	782	265	1	943863000	
527032	5710	782	265	1	943863000	
527033	5710	1200	265	1	943863000	
527035	5710	1200	265	1	943863000	
527036	6325	1200	265	1	1045522500	
527037	6325	1200	265	1	1045522500	
527038	6325	1200	265	1	1045522500	
527039	6325	782	265	1	1045522500	
527040	6325	782	265	1	1045522500	
527041	6325	1200	265	1	1045522500	
527042	6325	1200	265	2	2091045000	
527043	6325	1200	265	1	1045522500	
527044	6440	1200	265	1	1064532000	
527045	6440	1200	265	5	5322660000	
527046	6440	782	265	2	2129064000	
527047	6440	1200	265	1	1064532000	
527048	4400	1075	265	1	727320000	
527049	4400	1075	265	1	727320000	
527050	6750	1200	265	1	1115775000	
527051	6750	1200	265	5	5578875000	
527052	6750	782	265	1	1115775000	
527053	6750	782	265	1	1115775000	
527054	6750	1200	265	1	1115775000	
Totalt volum					78946453500	

# Hulldেকে i EL - U1 - 001

Navn	lengde	bredde	høyde	antall	Volum = tv.snitt	
					A*L*antall	
U132001	2450	1200	320	3	1772085000	
U132002	9000	1200	320	3	6509700000	
U132003	9210	1200	320	2	4441062000	
U132004	6525	1200	320	3	4719532500	
U132005	6500	1200	320	5	7835750000	
U132006	6520	952	320	1	1571972000	
U132007	6525	1200	320	1	1573177500	
U132008	1700	739	320	2	819740000	
U132009	1700	1200	320	1	409870000	
U132010	4630	739	320	1	1116293000	
U132011	5520	1200	320	1	1330872000	
U132012	5520	715	320	2	2661744000	
U132013	5520	1200	320	9	11977848000	
U132014	5180	739	320	1	1248898000	
U132015	6020	1200	320	1	1451422000	
U132016	6020	715	320	1	1451422000	
U132017	6000	1200	320	5	7233000000	
U132018	6020	450	320	1	1451422000	
U132019	10365	952	320	1	2499001500	
U132020	10365	739	320	1	2499001500	
U132021	1950	1200	320	7	3291015000	
U132022	1950	739	320	2	940290000	
U132023	4110	1200	320	8	7927368000	
U132024	4110	672	320	2	1981842000	
U132025	7395	1200	320	3	5348803500	
U132026	7590	1200	320	1	1829949000	
U132027	7590	739	320	1	1829949000	
U132028	3000	1200	320	3	2169900000	
U132029	2975	1200	320	1	717272500	
U132030	2975	952	320	1	717272500	
U132031	2975	1200	320	12	8607270000	
U132033	6710	1200	320	3	4853343000	
U132034	2450	1200	320	1	590695000	
U132035	9210	1200	320	1	2220531000	
U132036	9000	1200	320	1	2169900000	
U132037	9210	1200	320	1	2220531000	
U132039	2450	1200	320	2	1181390000	
U132040	2450	1200	320	5	2953475000	
U132041	2450	1200	320	1	590695000	
U132045	9000	1200	320	2	4339800000	
U132046	9000	1200	320	1	2169900000	
U132047	6710	1200	320	1	1617781000	
U132048	6500	1200	320	1	1567150000	
U132049	6500	1200	320	1	1567150000	
U132050	6500	1200	320	1	1567150000	
U132051	6525	1200	320	1	1573177500	
U132052	6520	1200	320	1	1571972000	
U132053	6520	1200	320	1	1571972000	
U132054	5520	1200	320	1	1330872000	
U132055	5520	1200	320	1	1330872000	
U132056	5520	1200	320	1	1330872000	
U132057	5520	1200	320	1	1330872000	
Totalt volum					1,39585E+11	

Navn	lengde	bredde	høyde	antall	Volum = tv.snitt	
					A*L*antall	
U132058	7395	1200	320	1	1782934500	
U132059	7590	1200	320	1	1829949000	
U132060	6520	1200	320	7	11003804000	
U132061	7590	1200	320	1	1829949000	
U132062	4110	1200	320	1	990921000	
U132063	4110	1200	320	1	990921000	
U132064	9000	1200	320	1	2169900000	
U132065	7590	1200	320	1	1829949000	
U132066	6020	1200	320	8	11611376000	
U132067	6020	1200	320	1	1451422000	
U132068	6020	1200	320	1	1451422000	
U132069	6020	1200	320	1	1451422000	
U132070	6020	1200	320	1	1451422000	
U132071	6020	1200	320	1	1451422000	
U132072	6020	715	320	1	1451422000	
U132073	6000	1200	320	1	1446600000	
U132074	6000	1200	320	1	1446600000	
U132075	6000	1200	320	1	1446600000	
U132076	6000	1200	320	1	1446600000	
U132077	6000	1200	320	1	1446600000	
U132078	6000	1200	320	1	1446600000	
U132079	6000	1200	320	1	1446600000	
U132080	2975	1200	320	1	717272500	
U132081	3000	700	320	1	723300000	
U132082	3000	1200	320	1	723300000	
U132083	1950	1200	320	1	470145000	
U132084	1950	1200	320	1	470145000	
U132085	1950	1200	320	1	470145000	
U132086	1950	1200	320	1	470145000	
U132087	1950	1200	320	1	470145000	
U132088	1950	1200	320	1	470145000	
U132089	6000	1200	320	1	1446600000	
U132090	6000	1200	320	1	1446600000	
U132091	1950	1200	320	1	470145000	
U132092	1950	1200	320	1	470145000	
U132093	6000	1200	320	1	1446600000	
U132094	6000	1200	320	1	1446600000	
U132095	7590	1200	320	1	1829949000	
Totalt volum					66415817000	

## K.3 Klimaregnskap

### Betong

#### produksjonsfase:

Parameter	Enhet	Total
GWP	kg CO <sub>2</sub> -eq/m <sup>3</sup>	295,1755

#### Mengde pr enhet:

Element	Originalt tversnitt [m <sup>3</sup> ]	Nytt tversnitt [m <sup>3</sup> ]	Endring i %	Redusjonsfaktor
Søyler	0,6	0,368	-38,67 %	61,33 %
Bjelker	2,0832	1,0416	-50,00 %	50,00 %
Veggelement	0,509	0,445	-12,57 %	87,43 %
Huldekke	0,1827	0,1653	-9,52 %	90,48 %

Element	Totalt mengde- plaststøp [m <sup>3</sup> ]	Total mengde - redusert[m <sup>3</sup> ]
Søyler	20,497	12,57149333
Bjelker	123,163	61,5815
Veggelement	559,8	489,4125737
Huldekke	951,516	860,8954286
Total	1654,976	1424,460996

#### Klimagassutslipp:

Mengde utslipp	Enhet	mengde*utslippsverdi	
		Originalt	Redusert
	kg CO <sub>2</sub>	488508,3683	420465,9866

Mengde utslipp	Enhet	mengde*utslippsverdi	
		Originalt	Redusert
	Tonn CO <sub>2</sub>	488,5083683	420,4659866

#### Reduksjon i CO<sub>2</sub> utslipp:

Reduksjon	%
CO <sub>2</sub>	-13,93 %