

ARCHCELL® 产品

加工和尺寸公差

上海蓝茵化工科技有限公司

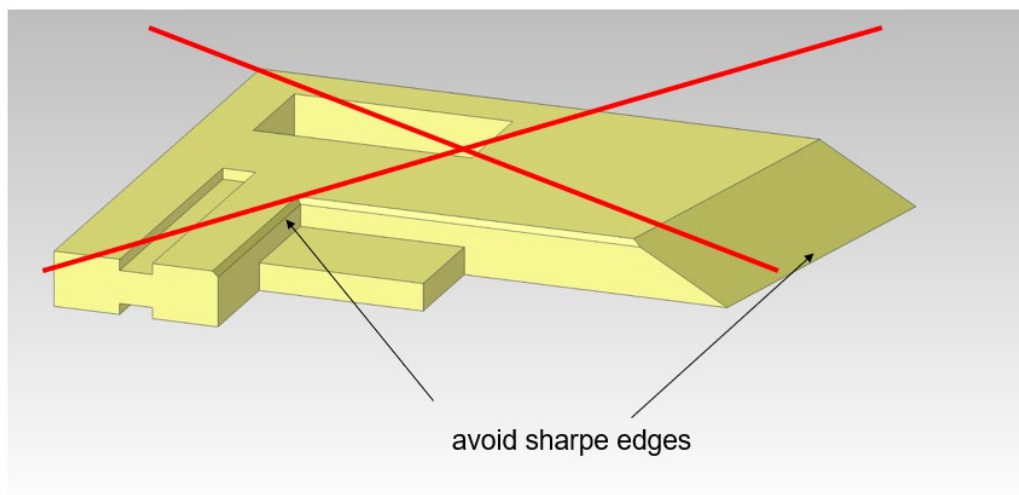
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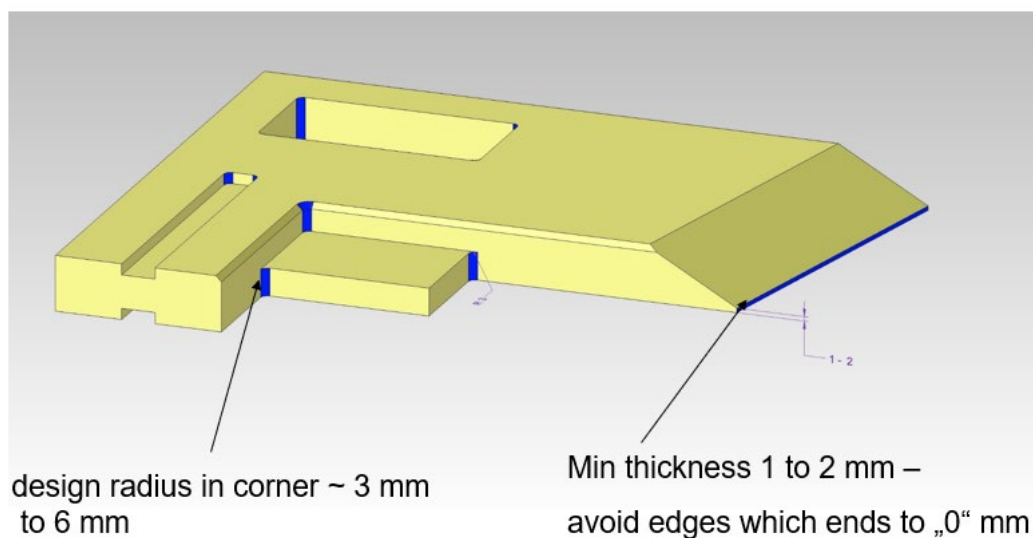


ARCHCELL® 产品加工和尺寸公差

1, ARCHCELL® 产品的加工



上图设计中，存在尖角，加工难度大，建议修改成下面的设计。



PMI 泡沫的成型方法很多，有数控成型；热成型（一面硬模；两面硬模；一面硬模一面软模）；冷变形，热定型；颗粒发泡成型，预发泡颗粒发泡成型；锯条切割；圆盘锯切割；超薄切割，激光切割，水切割等。

2, ARCHCELL® 板材的公差

- 国内





QBT 5491-2019

聚甲基丙烯酸酰胺

QB/T 5491-2020 聚甲基丙烯酸酰胺泡沫板材

表 2 产品长度和宽度允许的极限偏差

单位:毫米

项目	尺寸	允许偏差
长度(L)和宽度(W)	$L(W) \leq 100$	± 1
	$100 < L(W) \leq 1200$	± 2
	$L(W) > 1200$	± 5

表 3 产品厚度允许的极限偏差

单位: 毫米

	尺寸	允许偏差
厚度(H)	$H < 10$	± 0.2
	$10 \leq H < 50$	± 0.3
	$50 \leq H < 90$	± 0.4
	$H \geq 90$	± 2

- 国外
基本型号 厚度公差 $\pm 0.5\text{mm}$
特种型号 厚度公差 $\pm 0.2\text{mm}$

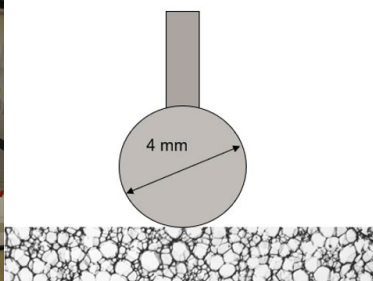
3, 泡沫部件的公差

- 国内:
国内目前是一没有标准, 二没有相应的设备和软件。
- 国外:

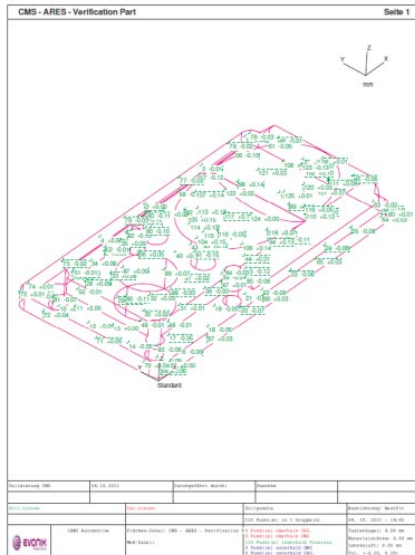


General Tolerances
DIN ISO 2768

标准是 ISO 2768, 检测方法 FARO



PMI 泡沫的孔隙大小是 0.03mm-0.5mm, FARO 探头的直径是 4mm, 测量的精度是 $\pm 0.005\text{mm}$ 。

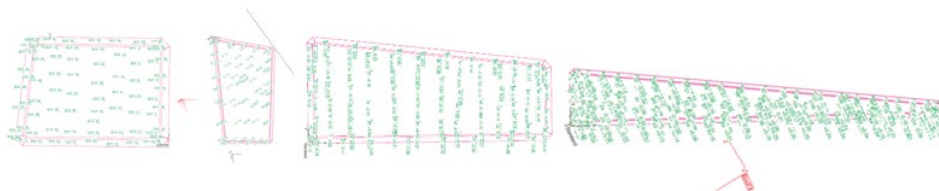


CMS - ARES - Verification Part										Seite 2									
Gruppenname	ST	ST	ST	ST	ST	ST	ST	ST	ST	Gruppenname	ST	ST	ST	ST	ST	ST	ST	ST	ST
Point 1										Point 13									
Ball1	+288.00	+144.45	+15.00	-0.04						Ball1	+18.10	+12.28	+15.00	+0.00					
Left	+288.00	+144.45	+15.00							Left	+18.10	+12.28	+15.00	+0.00					
Delta1	+0.00	+0.00	+0.00							Delta1	+0.00	+0.00	+0.00	+0.00					
Point 2										Point 14									
Ball1	+233.20	+144.30	+15.00	-0.01						Ball1	+1.36	+13.81	+15.00	-0.04					
Left	+233.20	+144.30	+15.00							Left	+1.36	+13.81	+15.00	-0.04					
Delta1	+0.00	+0.00	+0.00							Delta1	+0.00	+0.00	+0.00	-0.04					
Point 3										Point 15									
Ball1	+141.75	+144.10	+15.00	+0.00						Ball1	+8.29	+8.29	+15.00	-0.09					
Left	+141.75	+144.10	+15.00							Left	+8.29	+8.29	+15.00	-0.09					
Delta1	+0.00	+0.00	+0.00							Delta1	+0.00	+0.00	+0.00	-0.09					
Point 4										Point 16									
Ball1	+202.53	+144.39	+15.00	-0.03						Ball1	+28.85	+1.13	+15.00	-0.05					
Left	+202.53	+144.39	+15.00							Left	+28.85	+1.13	+15.00	-0.05					
Delta1	+0.00	+0.00	+0.00							Delta1	+0.00	+0.00	+0.00	-0.05					
Point 5										Point 17									
Ball1	+144.32	+144.78	+15.00	+0.06						Ball1	+38.07	+28.88	+15.00	-0.05					
Left	+144.32	+144.78	+15.00							Left	+38.07	+28.88	+15.00	-0.05					
Delta1	+0.00	+0.00	+0.00							Delta1	+0.00	+0.00	+0.00	-0.05					
Point 6										Point 18									
Ball1	+10.08	+141.91	+15.00	+0.10						Ball1	+68.80	+8.80	+15.00	-0.05					
Left	+10.08	+141.91	+15.00							Left	+68.80	+8.80	+15.00	-0.05					
Delta1	+0.00	+0.00	+0.10							Delta1	+0.00	+0.00	+0.00	-0.05					
Point 7										Point 19									
Ball1	+10.74	+131.17	+15.00	+0.07						Ball1	+88.23	+18.89	+15.00	-0.05					
Left	+10.74	+131.17	+15.00							Left	+88.23	+18.89	+15.00	-0.05					
Delta1	+0.00	+0.00	+0.07							Delta1	+0.00	+0.00	+0.00	-0.05					
Point 8										Point 20									
Ball1	+80.83	+130.62	+15.00	+0.04						Ball1	+107.30	+2.66	+15.00	-0.07					
Left	+80.83	+130.62	+15.00							Left	+107.30	+2.66	+15.00	-0.07					
Delta1	+0.00	+0.00	+0.04							Delta1	+0.00	+0.00	+0.00	-0.07					
Point 9										Point 21									
Ball1	+8.49	+136.64	+15.00	+0.08						Ball1	+122.69	+10.14	+15.00	-0.04					
Left	+8.49	+136.64	+15.00							Left	+122.69	+10.14	+15.00	-0.04					
Delta1	+0.00	+0.00	+0.08							Delta1	+0.00	+0.00	+0.00	-0.04					
Point 10										Point 22									
Ball1	+8.13	+110.32	+15.00	+0.06						Ball1	+137.32	+6.71	+15.00	-0.06					
Left	+8.13	+110.32	+15.00							Left	+137.32	+6.71	+15.00	-0.06					
Delta1	+0.00	+0.00	+0.06							Delta1	+0.00	+0.00	+0.00	-0.06					
Point 11										Point 23									
Ball1	+18.18	+101.31	+15.00	+0.05						Ball1	+152.67	+4.67	+15.00	-0.05					
Left	+18.18	+101.31	+15.00							Left	+152.67	+4.67	+15.00	-0.05					
Delta1	+0.00	+0.00	+0.05							Delta1	+0.00	+0.00	+0.00	-0.05					
Point 12										Point 24									
Ball1	+6.61	+78.48	+15.00	+0.01						Ball1	+168.68	+8.97	+15.00	-0.05					
Left	+6.61	+78.48	+15.00							Left	+168.68	+8.97	+15.00	-0.05					
Delta1	+0.00	+0.00	+0.01							Delta1	+0.00	+0.00	+0.00	-0.05					

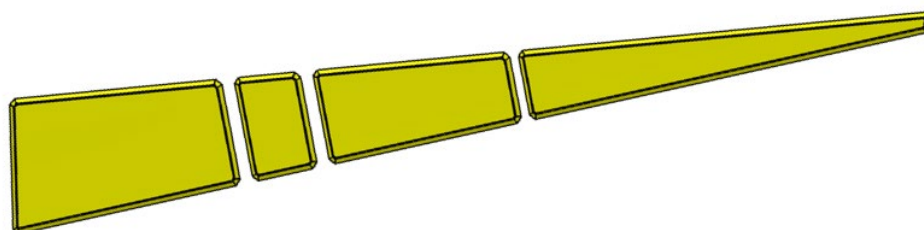
Tolerance according to ISO 2768 m:

Tolerance class		Permissible deviations for basic size range							
Designation	Description	from 0,5" up to 3	over 3 up to 6	over 6 up to 30	over 30 up to 120	over 120 up to 400	over 400 up to 1000	over 1000 up to 2000	over 2000 up to 4000
f	fine	± 0.05	± 0.05	± 0.1	± 0.15	± 0.2	± 0.3	± 0.5	--
m	medium	± 0.1	± 0.1	± 0.2	± 0.3	± 0.5	± 0.8	± 1.2	± 2
c	coarse	± 0.2	± 0.3	± 0.5	± 0.8	± 1.2	± 2	± 3	± 4
v	very coarse	--	± 0.5	± 1	± 1.5	± 2.5	± 4	± 6	± 8

* For nominal size below 0.5 mm, the deviation shall be indicated adjacent to the relevant nominal size(s).



Tolerance $\pm 0,3 \text{ mm}$ can be achieved for large parts



代木加工的公差通常也在 15 丝以后。德国的泡沫加工单，参见下图



Toleranz (mm) ☐ +/- >1 ☐ +/- 1 ☐ +/- 0,5 ☐ +/- 0,3 ☐ +/- 0,2
ISO 2768 ☐ (f) fine ☐ (m) medium ☐ (c) course ☐ (v) very course

4, 泡沫部件的设计公差

具体公差，供需双方，面议取得一致。

